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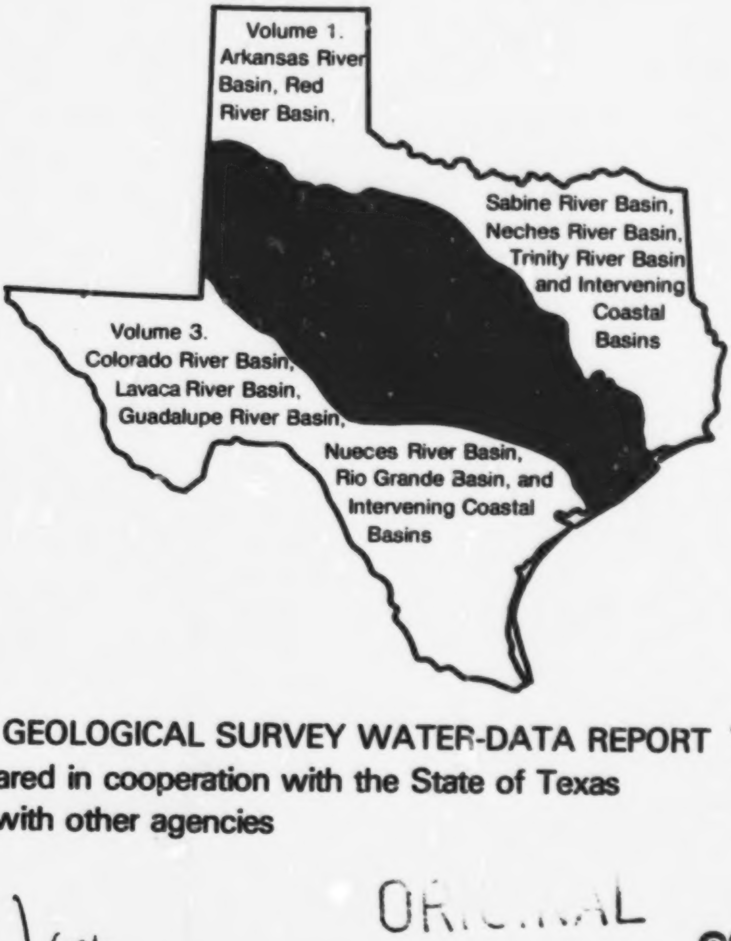
Water Resources Data Texas Water Year 1986

Volume 2. San Jacinto River Basin, Brazos River Basin, San Bernard River Basin, and Intervening Coastal Basins


Volume 1.
Arkansas River Basin, Red River Basin,
Sabine River Basin, Neches River Basin, Trinity River Basin and Intervening Coastal Basins
Volume 3.
Colorado River Basin, Lavaca River Basin, Guadalupe River Basin,
Nueces River Basin, Rio Grande Basin, and Intervening Coastal Basins

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT TX-86-2
Prepared in cooperation with the State of Texas
and with other agencies

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COMPLETED

CALENDAR FOR WATER YEAR 1986

1985

OCTOBER

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1986

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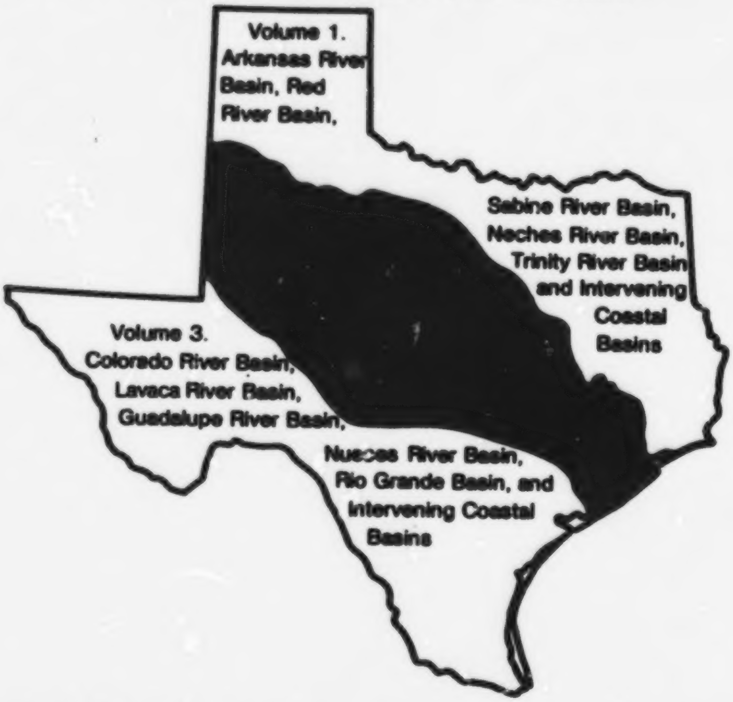
U.S. DEPARTMENT OF THE INTERIOR
March 3, 1849

Water Resources Data
Texas
Water Year 1986

Volume 2. San Jacinto River Basin, Brazos River Basin, San Bernard River Basin, and Intervening Coastal Basins

by H.D. Buckner, E.R. Carrillo, and H.J. Davidson


Volume 1.
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Sabine River Basin,
Neches River Basin,
Trinity River Basin
and Intervening
Coastal
Basins
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Colorado River Basin,
Lavaca River Basin,
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Rio Grande Basin, and
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Basins

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT TX-86-2
Prepared in cooperation with the State of Texas
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ii

UNITED STATES DEPARTMENT OF THE INTERIOR

DONALD PAUL HODEL, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For additional information write to
District Chief, Water Resources Division
U.S. Geological Survey
300 East 8th Street
Austin, Texas 78701

1987

Preface

This volume of the annual hydrologic data report of Texas is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. Records of streamflow and quality-of-water data required to provide the hydrologic information needed by State, local and Federal agencies, and the private sector for developing and managing land and water resources in Texas are contained in 3 volumes:

Volume 1. Arkansas River Basin, Red River Basin, Sabine River Basin, Neches River Basin, Trinity River Basin, and intervening and adjacent Coastal Basins

Volume 2. San Jacinto River Basin, Brazos River Basin, San Bernard River Basin, and intervening Coastal Basins

Volume 3. Colorado River Basin, Lavaca River Basin, Guadalupe River Basin, Nueces River Basin, Rio Grande Basin, and intervening Coastal Basins

This report is the culmination of a concerted effort by dedicated personnel of the Texas District, U.S. Geological Survey, who collected, compiled, analyzed, verified, and organized the data, typed, edited, and assembled the report, and who assured that the information contained here is accurate, complete, and adheres to Geological Survey policy and established guidelines.

This report was prepared in cooperation with the State of Texas and other agencies under the supervision of C. W. Boning, District Chief.

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WATER RESOURCES DATA - TEXAS, 1986

VOLUME 2

SAN JACINTO RIVER BASIN, BRAZOS RIVER BASIN, SAN BERNARD RIVER BASIN, AND INTERVENING COASTAL BASINS

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with Federal, State, and City agencies, obtains a large amount of data pertaining to the water resources of Texas each water year. Such data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the Geological Survey, the data are published annually in three volumes of this report series entitled "Water Resources Data - Texas."

This report series includes records of stage, discharge, and water quality of streams and canals; stage, contents, and water quality of lakes and reservoirs. Volume 2 contains records for water discharge at 112 gaging stations; stage only at 9 gaging station; stage and contents at 24 lakes and reservoirs; and water quality at 72 gaging stations. Also included are data for 39 partial-record stations. The data in this report represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Texas.

This series of annual reports for Texas began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1975 water year, the report was changed to its present format, with data on quantities and quality of surface water contained in each of three volumes.

Prior to introduction of this series and for several water years concurrent with it, water resources data for Texas were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-Water Supply of the United States, Parts 7 and 8." For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from U.S. Geological Survey, Books and Open-File Reports, Federal Center, Bldg. 41, Box 25425, Denver, CO 80225.

Publications similar to this report are published annually by the Geological Survey for all States. These official Geological Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water Data Report TX-86-2." For archiving and general distribution, the reports for the 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or may be purchased on microfiche from the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including the current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (512) 482-5571.

COOPERATION

Federal agencies that assisted the Geological Survey in the collection of data in this report in the form of funds or services in 1986 are:

Corps of Engineers, U.S. Army.

International Boundary and Water Commission, United States and Mexico, U.S. Section.

U.S. Bureau of Reclamation.

Organizations that assisted in the collection of data in this report through joint-funding agreements through the Texas Water Development Board or through direct joint-funding agreements with the Gological Survey are:

Texas Water Development Board, C. E. Nemir, Executive Administrator; the cities of Abilene, Alice, Arlington, Austin, Carrollton, Corpus Christi, Dallas, El Paso, Gainesville, Garland, Georgetown, Graham, Houston, Lubbock, Nacogdoches, Runaway Bay, San Angelo, San Antonio, and Wichita Falls; Athens Municipal Water Authority; Bexar, Medina, and Atascosa Counties Water Control and Improvement District No. 1; Bistone Municipal Water Supply District; Brazos River Authority; Coastal Industrial Water Authority; Colorado River Municipal Water District; Dallas County; Dallas Public Works Department; Dallas/Fort Worth Airport; Dallas Utilities Water Department; Edwards Underground Water District; Fort Bend County, Franklin County Water District; Galveston County; Greenbelt Municipal and Industrial Water Authority; Guadalupe-Blanco River Authority; Harris County Flood Control District; Harris-Galveston Coastal Subsidence District; Lower Colorado River Authority; Lower Neches Valley Authority; MacKenzie Municipal Water Authority; North Central Texas Municipal Water Authority; Northeast Texas Municipal Water District; Orange County; Pecos River Commission; Red Bluff Water Power Control District; Reeves County Water Improvement District No. 1; Sabine River Authority of Texas; Sabine River Compact Administration; San Antonio City Public Service Board; San Antonio City Water Board; San Antonio River Authority; San Jacinto River Authority; Tarrant County Water Control and Improvement District No. 1; Texas Parks and Wildlife, Titus County Fresh Water Supply District No. 1; Trinity River Authority; Upper Guadalupe River Authority; Upper Neches River Municipal Water Authority; Upper Trinity Basin Water Quality Compact; West Central Texas Municipal Water District; Wichita County Water Improvement District No. 2; Willow Fork Drainage District; and Wood County.

HYDROLOGIC CONDITIONS

Large variations in precipitation, runoff, and streamflow characterize the usual hydrologic conditions in Texas. In the eastern part of the State, streams generally are deep with wide alluvial flood plains, and streamflow is perennial. In the western part of the State, streams generally flow through arroyos, and streamflow principally is ephemeral.

Precipitation during the 1986 water year generally was in the normal range except for the period November through April when drier than usual conditions existed in most areas. January 1986 was extremely dry, with many stations reporting no precipitation during the month. In June, extensive precipitation occurred in parts of south-central Texas. San Antonio received 11.95 inches (6.30 inches in a 24-hour period), setting a new record for the month of June. Unusual weather features for the year included an uncommonly warm winter and the scarcity of tropical storms, which can produce intense precipitation along their paths. "Bonnie", the only tropical storm to enter the State during the year, yielded only moderate precipitation along its path across southeast Texas in late June.

Conservation storage in 71 selected reservoirs throughout the State, with a combined conservation capacity of 31,987,890 acre-feet, increased from 75 percent at the end of September 1985 to 85 percent at the end of September 1986. Records from these 71 reservoirs indicate that contents increased in 62, decreased in 7, and remained the same in 2.

The area for which water data are presented in volume 2 extends from the New Mexico border in northwestern Texas, southeastward across the central part of the State to the upper middle Texas Gulf Coast. Normal annual precipitation ranges from less than 17 inches in the westernmost part of the area to nearly 50 inches along the Gulf Coast. Annual runoff ranges from less than 1.0 inch in the west to more than 15 inches in places along the Gulf Coast. The location of selected streamflow and water-quality stations in the area of Texas covered by volume 2 is shown in figure 1.

Streamflow

At the beginning of the 1986 water year, streamflow was normal over the entire area. Except for short periods of deficient flow in some areas, streamflow remained normal through April. In late May and early June, intense rainstorms produced excessive runoff over the entire area. Streamflow rates returned to the normal range in July, except for the lower Brazos and San Jacinto River basins, where excessive flow continued. In August and September, streamflow was greater than normal in the middle portion of the Brazos River basin and normal in the remainder of the area.

Streamflow at the hydrologic index station North Bosque River near Clifton was excessive (within the highest 25 percent of record) in June and September, deficient in December, January, March, and April, and near normal the remainder of the year. A comparison of streamflow for the 1986 water year with streamflow for the period of record at five selected stations (fig. 1) for which data are included in volume 2 is presented in the following table:

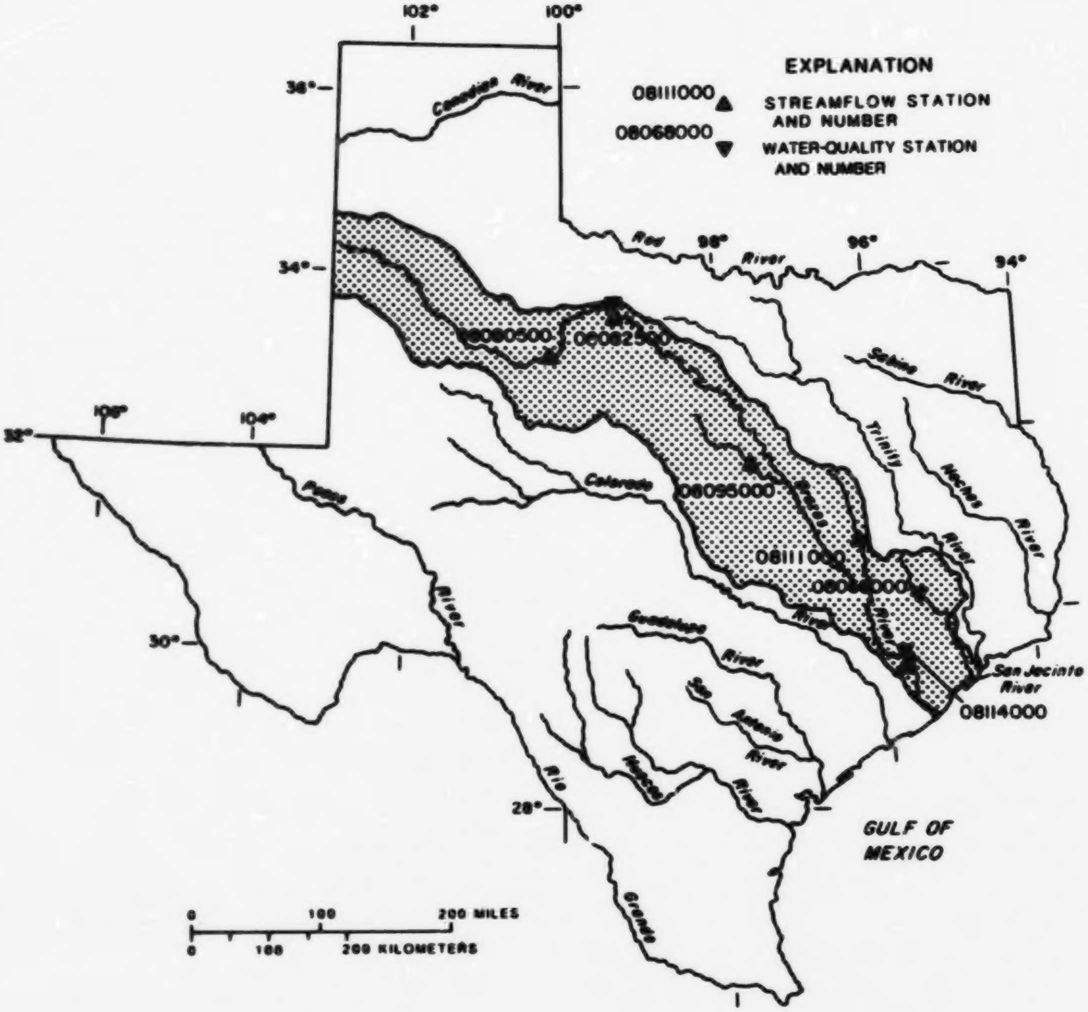
102°
100°
36°
Canadian River
EXPLANATION
08111000 ▲ STREAMFLOW STATION AND NUMBER
08068000 ▼ WATER-QUALITY STATION AND NUMBER
Red River
98°
96°
94°
34°
08080500
08082500
Sabine River
106°
104°
32°
Trinity River
Neches River
Colorado
Pecos River
08095000
Brazos River
08111000
River
30°
Guadalupe River
San Antonio River
Nueces River
San Jacinto River
08114000
28°
Rio Grande
GULF OF MEXICO
0 100 200 MILES
0 100 200 KILOMETERS

Figure 1.--Area of Texas covered by volume 2 (shaded) and location of selected streamflow and water-quality stations in volume 2.

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Station no. and name		Discharge during 1986 water year (cubic feet per second)			Discharge during period of record (cubic feet per second)		
		Max.	Min.	Avg.	Max.	Min.	Avg.
08080500	Double Mountain Fork Brazos River near Aspermont, Tex. 1/	13,700	0.50	224	91,400	0	161 (1925-34, 1941-86)
08082500	Brazos River at Seymour Tex.	13,800	2.7	434	95,400	0	372 (1925-86)
08095000	North Bosque River near Clifton, Tex. 2/	23,200	2.4	188	92,800	0	155 (1968-86)
08111000	Navasota River near Bryan Tex.	27,000	12	837	38,200	0	595 (1961-86)
08114000	Brazos River at Richmond Tex.	45,600	846	8,379	123,000	35	7,165 (1941-86)

1/ National Stream Quality Accounting Network (NASQAN) site.
2/ Hydrologic index station.

Streamflow also was variable at the other three hydrologic index stations in the State. Monthly mean discharges for the four hydrologic index stations in the State are plotted against the median of the long-term monthly mean in figure 2. Streamflow during the 1986 water year at Neches River near Rockland was excessive (within the highest 25 percent of record) during the periods October through December and June through July, deficient (within the lowest 25 percent of record) in April, and near normal the remainder of the year. The North Concho River near Carlsbad had excessive runoff in October, January through March, June, and August through September, and near normal the remainder of the year. Streamflow in the Guadalupe River near Spring Branch was excessive during the year except for the months of March through May, and August when flow rates were near normal.

Conservation storage in 21 selected reservoirs in this area (volume 2) of the State, with a total combined conservation capacity of 3,936,670 acre-feet, increased from 85 percent at the end of September 1985 to 94 percent at the end of September 1986. Records from the 21 reservoirs indicate that contents increased in 17 and decreased in 4 during the 1986 water year.

Water Quality

Dissolved-solids concentrations in most streams in the State are inversely related to streamflow. During years when precipitation and runoff are deficient, streamflow commonly is much more mineralized than during years when precipitation and runoff are normal or excessive. However, for streams where discharge is controlled by reservoirs, the mineralization of the water may remain relatively constant despite large fluctuations in precipitation and runoff.

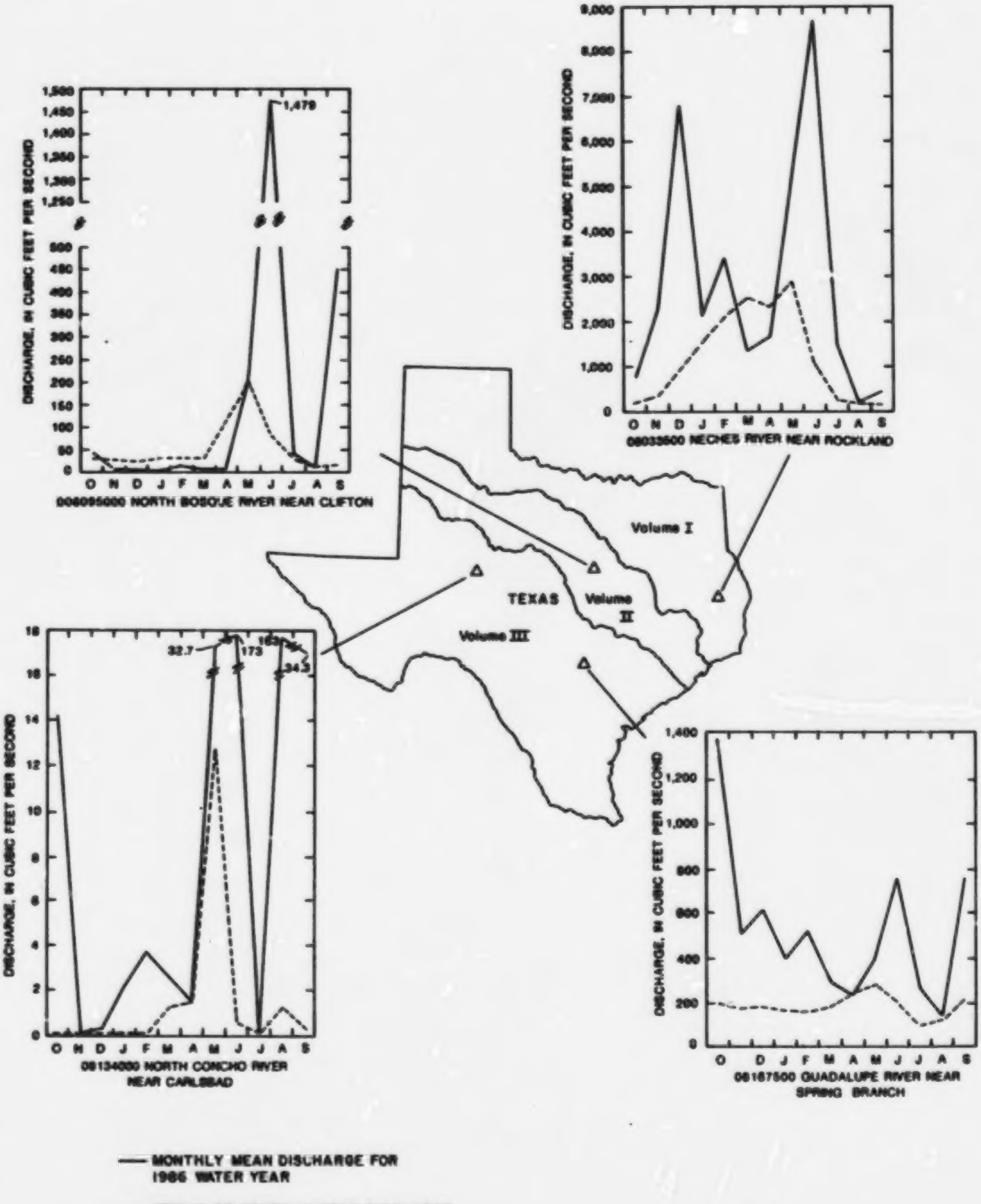

Figure 2.--Comparison of monthly mean discharge at four long-term hydrologic index gaging stations during the 1986 water year with median of the monthly mean discharge for 1951-80 water years.

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Records of discharge-weighted-average concentrations of dissolved solids for the 1986 water year are compared with those for the 1982-86 water years for selected long-term daily or continuous-record stations in the San Jacinto and Brazos River basins in the following table:

Station no. and name		Mean discharge (cubic feet per second)		Discharge-weighted-average concentration of dissolved solids (milligrams per liter)	
		1986	1982-86	1986	1982-86
San Jacinto River basin					
08068000	West Fork San Jacinto River near Conroe, Tex.	482	534	115	104
Brazos River basin					
08082500	Brazos River at Seymour, Tex.	434	355	2,450	2,760
08114000	Brazos River at Richmond, Tex.	8,379	5,923	317	363

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-Mark Network is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

The National Trends Network (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

Radiochemical Program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Tritium Network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

EXPLANATION OF THE RECORDS

The surface-water records published in this report are for the 1986 water year that began October 1, 1985, and ended September 30, 1986. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, and water-quality data for surface water. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for wells and, in Texas, for surface-water stations where only miscellaneous measurements are made.

Downstream Order Numbering

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indention in the "List of Stations" in the front of this report. Each indention represents one rank. This downstream order and system of indention shows which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station, such as 08057000, which appears just to the left of the station name, includes the two-digit Part number "08" plus the six-digit downstream-order number "057000." The Part number designates the major river basin; for example, Part "08" is the Western Gulf of Mexico basin.

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake or reservoir content, similarly, are those for which stage or content may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a continuous stage-recording device, but need not be. Because daily mean discharges and end-of-day contents commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records," or "Low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report.

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relationships between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily discharges. The data obtained at a complete-record gaging station on a lake or reservoir consist of a record of stage and of notations regarding factors that may affect the relationship between stage and lake content. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas and lake storage.

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adopted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6.

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using: (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow over dams or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed by applying the daily mean stages (gage heights) to the stage-discharge curves or tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

At some stream-gaging stations, the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

In computing records of lake or reservoir contents, it is necessary to have available from surveys, curves or tables defining the relationship of stage and content. The application of stage to the stage-content curves or tables gives the contents from which daily, monthly, or yearly changes then are determined. If the stage-content relationship changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relationship. Even when this is done, the contents computed may become increasingly in error as the lapsed time since the last survey increases. Discharges over lake or reservoir spillways are computed from stage-discharge relationships much as other stream discharges are computed.

For some gaging stations, there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data presentation

The records published for each gaging station consist of two parts, the manuscript or station description and the data table for the current water year. The manuscript provides, under various headings, descriptive information, such as station location; period of record; average discharge; historical extremes; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

LOCATION.--Information on locations is obtained from the most accurate maps available. The location of the gage with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages, given for only a few stations, were determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

DRAINAGE AREA.--Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

PERIOD OF RECORD.--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not and whose location was such that records from it can reasonably be considered equivalent with records from the present station.

REVISED RECORDS.--Published records, because of new information, occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

GAGE.--The type of gage in current use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929 (see glossary), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.--All periods of estimated daily-discharge record will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily-discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a remarks statement is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, to conditions that affect natural flow at the station and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

AVERAGE DISCHARGE.--The discharge value given is the arithmetic mean of the water-year mean discharges. It is computed only for those stations having at least 5 water years of complete record, and only water years of complete record are included in the computation. It is not computed for stations where diversions, storage, or other water-use practices cause the value to be meaningless. If water developments significantly altering flow at a station are put into use after the station has been in operation for a period of years, a new average is computed as soon as 5 water years of record have accumulated following the development. The median of yearly mean discharges also is given under this heading for stations having 10 or more water years of record, if the median differs from the average given by more than 10 percent.

EXTREMES FOR PERIOD OF RECORD.--Extremes may include maximum and minimum stages and maximum and minimum discharges or content. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the highest stage that occurred. The highest stage may have been obtained from a graphic or digital recorder, a crest-stage gage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the U.S. Geological Survey.

EXTREMES FOR CURRENT YEAR.--Extremes given here are similar to those for the period of record, except the peak discharge listing may include secondary peaks. For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. The peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330. The minimum for the current water year appears below the table of peak data.

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error. Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the offices whose addresses are given on the back of the title page of this report to determine if the published records were ever revised after the station was discontinued. Of course, if the data were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the "Remarks" and in the inclusion of a skeleton stage-capacity table when daily contents are given.

The daily table for stream-gaging stations gives mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also is usually expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN."), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. In the yearly summary below the monthly summary, the figures shown are the appropriate discharges for the calendar and water years. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversions or reservoir contents are given.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified either by flagging individual daily values with the letter symbol "e" and printing a table footnote, "e Estimated," or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of the Records

The accuracy of streamflow records depends primarily on: (1) The stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements; and (2) the accuracy of measurements of stage, measurements of discharge, and interpretation of records.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of their true values; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for values less than 1 ft^3/s; to the nearest tenth between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures for more than 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff, in inches, are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other Records Available

Information used in the preparation of the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables is on file in the Texas District. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the offices whose addresses are given on the back of the title page of this report.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications.

A continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be once or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A miscellaneous sampling site is a location other than a continuing or partial-record station where random samples are collected to give better areal coverage to define water-quality conditions in the river basin. A careful distinction needs to be made between "continuing records", as used in this report, and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently.

Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

On-site Measurements and Sample Collection

In obtaining water-quality data, a major concern needs to be assuring that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory.

Procedures for on site measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed under "PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS" which appears at the end of the introductory text. Detailed information on collecting, treating, and shipping samples may be obtained from the Texas Office of the Central Regional Office.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals depends on flow conditions and other factors which must be evaluated by the collector.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the Texas District Office whose address is given on the back of the title page of this report.

Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the Texas District Office.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly).

The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of suspended-sediment discharge, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included for some stations.

Laboratory Measurements

Sediment samples, samples for biochemical-oxygen demand (BOD), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the Geological Survey laboratory in Arvada, Colorado. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used by the Geological Survey laboratory are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4.

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, as appropriate, is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.--Information on instrumentation is given only if a water-quality monitor temperature record, sediment pumping sampler, or other sampling device is in operation at a station.

REMARKS.--Remarks provide added information pertinent to the collection, analysis, or computation of the records.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to insure the most recent updates.

The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

Remark Codes

The following remark codes may appear with the water-quality data in this report:

PRINTED OUTPUT	REMARK
E	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptance range (non-ideal colony count)
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted)
D	Biological organism count equal to or greater than 15 percent (dominant)
&	Biological organism estimated as dominant

ACCESS TO WATSTORE DATA

The National WATer Data STOrage and REtrieval System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide for more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey at its National Center in Reston, Virginia.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from the District office (see address given on the back of the title page).

General inquiries about WATSTORE may be directed to:

Chief Hydrologist
U.S. Geological Survey
437 National Center
Reston, Virginia 22092

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System (SI) Units on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Adenosine triphosphate (ATP) is an organic, phosphate-rich, compound important in the transfer of energy in organisms. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Bacteria are microscopic unicellular organisms, typically spherical, rod-like, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, while others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shapped bacteria which ferment lactose with gas formation within 24 hours at 35°C. In the laboratory these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C plus or minus 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water In the laboratory they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5°C plus or minus 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in the intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours hours at 35°C plus or minus 1.0°C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square mile (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 105°C for zooplankton and periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cubic-foot-per-second day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons, or 2,445 cubic meters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic foot per second (ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Cubic feet per second per square mile [$(ft^3/s)/mi^2$] is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to that material in a representative water sample which passes through a 0.45 μm membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved-solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

Diversity index is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = -\sum_{i=1}^{s} \frac{n_i}{n} \log_2 \frac{n_1}{n}$$

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate .+($CaCO_2$).

Hydrologic Bench-Mark Network is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an eight-digit number.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substances (MBAS) are apparent detergents. The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

Micrograms per gram (µg/g) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per liter (UG/L, µg/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L and is based on the mass of dry sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

The National Trends Network (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

Organism is any living entity.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meter (m^2), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Parameter Code is a 5-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of a particle determined by either sieve or sedimentaiton methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay..........	0.00024 - 0.004	Sedimentation
Silt..........	.004 - .062	Sedimentation
Sand..........	.062 - 2.0	Sedimentation or sieve
Gravel........	2.0 - 64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic matter is removed, and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass, or volume.

Periphyton is the assemblage of microorganisms attached to and living upon submerged solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [mg C/(m^2.time)] for periphyton and macrophytes and [mg C/(m^3.time)] for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mgO /(m^2.time)] for periphyton and macrophytes and [mgO /(m^3.time)] for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Return period is the average time interval between occurrences of a hydrological event of a given or greater magnitude, usually expressed in years. May also be called recurrence interval.

Runoff in inches (IN., in.) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Bed load is the sediment that is transported in a stream by rolling, sliding, or skipping along the bed and very close to it. In this report, bed load is considered to consist of particles in transit within 0.25 ft of the streambed.

Bed load discharge (tons per day) is the quantity of bed load measured by dry weight that moves past a section as bed load in a given time.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Suspended-sediment discharge (tons/day) is the rate at which dry mass of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft^3/s) x 0.0027.

Suspended-sediment load is a general term that refers to material in suspension. It is not synonymous with either discharge or concentration.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry mass or volume, that passes a section during a given time.

Total-sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. It is not synonymous with total-sediment discharge.

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Solute is any substance that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water, per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

Natural substrate refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Surface area of a lake is that area outlined on the latest U.S.G.S. topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is the part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with the material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 µm membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) *dissolved* and (2) *total recoverable* concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 µm membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) *dissolved* and (2) *total* concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchial scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, *Hexagenia limbata*, is the following:

Kingdom....................	Animal
Phylum.....................	Arthropoda
Class......................	Insecta
Order......................	Ephemeroptera
Family.....................	Ephemeridae
Genus......................	*Hexagenia*
Species....................	*Hexagenia limbata*

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY) is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determined all of the constituent in the sample.)

Total discharge is the total quantity of any individual constituent, as measured by dry mass or volume, that passes through a stream cross-section per unit of time. This term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Tritium Network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1986, is called the "1986 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WSP is used as an abbreviaton for "Water-Supply Paper" in reference to previously published reports.

PUBLICATIONS OF TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 604 South Pickett St., Alexandria, VA 22304 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

1-D1. *Water temperature-influential factors, field measurements, and data presentation,* by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 p.

3-A1. *General field and office procedures for indirect measurements,* by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 p.

3-A2. *Measurement of peak discharge by the slope-area method,* by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 p.

3-A3. *Measurement of peak discharge at culverts by indirect methods,* by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 p.

3-A4. *Measurement of peak discharge at width contractions by indirect methods,* by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 p.

3-A5. *Measurement of peak discharge at dams by indirect methods,* by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 p.

3-A6. *General procedure for gaging streams,* by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 p.

3-A7. *Stage measurements at gaging stations,* by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 p.

3-A8. *Discharge measurements at gaging stations,* by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 p.

3-A9. *Measurement of time of travel and dispersion in streams by dye tracing,* by E. F. Hubbard, F. A. Kilpatrick, L. A. Martens, and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1982. 44 p.

3-A10. *Discharge ratings at gaging stations,* by E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 p.

3-A11. *Measurement of discharge by moving-boat method,* by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 p.

3-A13. *Computations of continuous records of streamflow,* by E. J. Kennedy: USGS-TWRI Book 3, Chapter A13, 1983. 53 p.

3-A14. *Use of flumes in measuring discharge,* by F. A. Kilpatrick and V. R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 p.

3-A15. *Computation of water-surface profiles in open channels,* by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 p.

3-C1. *Fluvial sediment concepts,* by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 p.

3-C2. *Field methods for measurement of fluvial sediment,* by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 p.

3-C3. *Computation of fluvial-sediment discharge,* by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 p.

4-A1. *Some statistical tools in hydrology,* by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 p.

4-A2. *Frequency curves,* by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 p.

4-B1. *Low-flow investigations,* by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 p.

4-B2. *Storage analyses for water supply,* by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 p.

4-B3. *Regional analyses of streamflow characteristics,* by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 p.

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments,* by M. W. Skougstad and others: USGS--TWRI Book 5, Chapter A1. 1979. 626 p.

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5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments,* by L. C. Friedman and D. E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 p.

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7-C3. *A model for simulation of flow in singular and interconnected channels,* by R. W. Schaffrannek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1983. 110 p.

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8-B2. *Calibration and maintenance of vertical-axis type current meters,* by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 p.

08067600 LAKE CONROE NEAR CONROE, TX

LOCATION.--Lat 30°21'30", long 95°33'39", Montgomery County, Hydrologic Unit 12040101, at service outlet tower at Conroe Dam on West Fork San Jacinto River, 140 ft upstream from centerline of dam, and 7.4 mi west of Conroe.

DRAINAGE AREA.--445 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1973 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--The lake is formed by an earthfill dam 11,300 ft long, including a controlled spillway. The dam was completed Sept. 1, 1972, and deliberate impoundment began Jan. 9, 1973. Water is used for municipal and industrial purposes in the Houston metropolitan area. In addition, a small diversion is made for cooling purposes at the Gulf State Utilities generating plant on Lewis Creek Reservoir near Conroe. During the current year, 1,704 acre-ft was diverted to Lewis Creek Reservoir for that purpose. A spillway with five 40- by 30-foot tainter gates is located near the center of dam. Low-flow releases are made through a separate multi-gated inlet tower. The tower has three gated openings and one uncontrolled opening. It is connected to a stilling basin and a concrete weir by a 14-foot-diameter conduit through the dam. Figures given herein represent total contents. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam..	212.0	-
Design flood..	205.5	532,000
Top of tainter gates..	202.5	462,600
Top of conservation pool (uncontrolled tower outlet)..............	201.0	430,300
Crest of spillway (sill of tainter gates).........................	173.0	64,900
Lowest gated outlet (invert)......................................	144.5	300

COOPERATION.--The capacity table, furnished by the San Jacinto River Authority, is based on Geological Survey maps dated 1958-59.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 512,000 acre-ft May 22, 1983 (elevation, 204.66 ft); minimum since normal operating level was reached, 360,400 acre-ft Nov. 22, 1980 (elevation, 197.46 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 449,500 acre-ft June 9 at 1700 hours to June 10 at 0500 hours (elevation, 201.90 ft); minimum, 389,300 acre-ft Oct. 12-14 (elevation, 198.98 ft).

Capacity table (elevation, in feet, and total contents, in acre-feet)

198.0	370,500	202.0	451,600
200.0	409,600		

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	393300	400700	432800	430100	429000	429600	425900	433700	430300	428600	416000	410300
2	392500	402100	431100	429800	429200	428800	425300	435800	430500	428600	415400	410100
3	391700	402100	430900	430100	431100	429800	425300	434500	430600	428200	415000	410300
4	392500	402300	431300	430900	431300	429800	425300	432000	431500	427800	414400	410300
5	391500	402100	430900	430100	431800	429600	425300	430500	432800	427200	413400	410300
6	390700	402500	430500	429900	431800	429400	425300	430500	436700	426800	413400	410300
7	389700	401900	430500	430300	431500	429000	425300	430500	441600	426800	412900	410300
8	389700	401300	430500	430300	431300	428600	425300	430500	447600	426800	412100	410300
9	389300	401500	430700	430300	432200	428200	425500	430300	449500	426500	411700	410100
10	389500	401700	430300	430300	432400	428200	426100	432200	447800	426100	411500	409800
11	389500	408200	436700	430500	431100	428000	425900	432000	446300	425300	412700	409800
12	389300	417900	440500	430700	431100	429000	426100	430900	443100	424900	412500	411300
13	389300	421000	442000	430700	429800	429200	425900	430300	438600	424700	412300	412500
14	390700	422000	439800	430700	430900	429200	426800	429000	434300	424700	411500	412500
15	393700	423000	438200	430700	430300	429200	425700	432200	431300	424100	411300	412500
16	393100	422600	435800	430900	430500	429200	425500	432400	430300	424100	411100	412500
17	393700	426100	433200	431500	431100	428000	424900	435800	431300	423500	411100	412300
18	394100	430700	432200	431300	430900	428600	424900	437300	431500	422800	410900	412500
19	394500	433500	430900	431100	431100	429600	426300	437700	432200	422400	410700	412100
20	394500	432400	430100	430300	431300	428800	426300	434300	432000	422200	410500	412500
21	394700	432000	430100	429800	431500	428200	426300	431500	431500	421800	409400	412700
22	395300	431800	430100	430500	431100	427200	425900	430500	430500	421600	408800	412500
23	395500	431500	430300	430700	430700	427200	425300	430500	430300	420800	409600	412500
24	395500	448000	430500	430300	430700	427000	425100	433200	430300	420200	410100	412500
25	395700	446300	430100	430700	430700	426800	424700	437300	430100	419700	409800	412500
26	395700	443100	429400	430700	430300	426300	424500	436700	429600	419100	409800	412300
27	396900	443300	429600	429800	430900	426500	426100	435600	429600	418700	409600	412300
28	398100	439400	429600	429000	430700	426500	426300	434500	429600	418300	411100	412500
29	398700	436000	429600	429200	---	426300	426300	431800	429400	417500	410900	412300
30	399100	432800	429600	429000	---	426100	427000	430700	429200	416700	410500	412300
31	399100	---	430300	429000	---	425900	---	430300	---	416200	410300	---
MAX	399100	448000	442000	431500	432400	429800	427000	437700	449500	428600	416000	412700
MIN	389300	400700	429400	429000	429000	425900	424500	429000	429200	416200	408800	409800
(†)	199.47	201.12	201.00	200.94	201.02	200.79	200.84	201.00	200.95	200.32	200.03	200.13
(‡)	+5000	+33700	-2500	-1300	+1700	-4800	+1100	+3300	-1100	-13000	-5900	+2000

CAL YR 1985 MAX 448000 MIN 389300 (‡) -3200
WTR YR 1986 MAX 449500 MIN 389300 (‡) +18200

(†) Elevation, in feet, at end of month.
(‡) Change in contents, in acre-feet.

08067600 LAKE CONROE NEAR CONROE, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: September 1973 to current year.

302127095335501 - LAKE CONROE SITE AC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3
FEB										
03...	1030	1.00	220	7.90	13.0	0.56	8.7	83	84	9
03...	1032	10.0	220	7.90	12.5	--	8.5	80	--	--
03...	1034	20.0	220	7.90	12.5	--	8.4	79	--	--
03...	1036	30.0	220	7.90	12.5	--	8.3	78	--	--
03...	1038	40.0	220	7.80	12.0	--	8.3	77	--	--
03...	1040	50.0	220	7.80	12.0	--	8.0	74	--	--
03...	1042	59.0	225	7.90	12.0	--	8.0	74	87	12
JUN										
04...	1006	1.00	230	8.60	27.0	1.16	8.7	110	86	8
04...	1008	10.0	230	7.80	25.5	--	7.0	86	--	--
04...	1010	20.0	235	7.40	24.5	--	3.9	47	--	--
04...	1012	30.0	235	7.30	24.0	--	2.6	31	--	--
04...	1014	40.0	235	7.30	23.0	--	0.6	7	--	--
04...	1016	50.0	255	7.40	20.5	--	0	0	--	--
04...	1018	57.0	285	7.40	19.0	--	0	0	100	0
SEP										
02...	1130	1.00	235	8.20	28.0	0.55	6.6	--	87	8
02...	1132	10.0	235	7.90	27.5	--	5.3	--	--	--
02...	1134	20.0	235	7.70	27.5	--	5.0	--	--	--
02...	1136	30.0	235	7.30	27.0	--	0.7	9	--	--
02...	1138	40.0	265	7.10	24.0	--	0	0	--	--
02...	1140	55.0	320	6.90	21.5	--	0	0	120	0

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB									
03...	30	2.3	13	0.6	3.0	75	9.2	19	--
03...	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--
03...	31	2.3	13	0.6	3.0	75	9.4	21	--
JUN									
04...	31	2.2	13	0.6	3.1	78	9.0	20	0.2
04...	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--
04...	37	2.5	13	0.6	3.3	121	4.4	21	--
SEP									
02...	31	2.3	13	0.6	3.4	79	8.0	21	0.2
02...	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--
02...	43	2.7	13	0.5	4.0	125	5.4	21	--

08067600 LAKE CONROE NEAR CONROE, TX--Continued

302127095335501 - LAKE CONROE SITE AC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CADMIUM DIS-SOLVED (UG/L AS CD)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB									
03...	9.3	130	0.10	0.6	0.02	--	--	8	2
03...	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--
03...	--	--	0.10	0.6	0.02	3.7	--	20	<10
03...	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--
03...	9.5	130	0.10	0.7	0.02	2.8	--	30	26
JUN									
04...	8.2	130	<0.10	0.6	0.02	--	--	5	12
04...	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--
04...	--	--	<0.10	0.4	0.03	--	--	30	130
04...	--	--	<0.10	0.4	0.02	--	--	190	1500
04...	--	--	--	--	--	--	--	--	--
04...	15	180	<0.10	1.9	0.10	--	--	2300	7500
SEP									
02...	9.7	140	<0.10	0.8	0.04	--	--	7	19
02...	--	--	--	--	--	--	--	--	--
02...	--	--	<0.10	1.0	0.03	--	--	<10	60
02...	--	--	<0.10	1.3	0.06	--	--	140	390
02...	--	--	--	--	--	--	--	--	--
02...	20	200	<0.10	5.0	0.73	--	55	5500	7400

302132095333701 - LAKE CONROE SITE AL

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
FEB								
03...	1108	1.00	220	7.90	12.5	0.65	8.6	81
03...	1110	10.0	220	7.90	12.5	--	8.5	80
03...	1112	20.0	220	7.90	12.5	--	8.4	79
03...	1114	30.0	220	7.90	12.0	--	8.4	78
03...	1116	40.0	220	7.80	12.0	--	8.5	79
03...	1118	44.0	220	7.90	12.0	--	8.5	79
JUN								
04...	1040	1.00	235	8.50	27.0	1.27	8.6	108
04...	1042	10.0	235	8.00	25.5	--	6.8	83
04...	1044	20.0	235	7.50	24.5	--	4.5	54
04...	1046	30.0	235	7.40	24.0	--	2.5	30
04...	1048	40.0	235	7.40	23.0	--	0.7	8
04...	1050	52.0	260	7.60	20.0	--	0	0
SEP								
02...	1202	1.00	235	8.20	29.0	0.49	6.4	--
02...	1204	10.0	235	7.90	28.0	--	5.5	--
02...	1206	20.0	235	7.60	27.5	--	4.9	--
02...	1208	30.0	235	7.30	27.0	--	0.9	11
02...	1210	40.0	265	7.10	24.0	--	0	0
02...	1212	50.0	285	7.00	22.0	--	0	0
02...	1214	60.0	320	7.00	21.0	--	0	0

302245095365301 - LAKE CONROE SITE BC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
FEB								
03...	1008	1.00	230	8.00	15.5	0.6	7.2	72
03...	1010	10.0	230	7.70	15.0	--	6.4	64
03...	1012	20.0	230	7.60	14.0	--	5.9	57
03...	1014	29.0	230	7.40	13.0	--	5.5	52
JUN								
04...	0946	1.00	230	8.50	28.5	1.09	7.1	--
04...	0948	10.0	230	7.90	26.0	--	6.4	79
04...	0950	20.0	240	7.10	25.0	--	2.5	30
04...	0952	29.0	240	7.00	24.5	--	0.6	7
SEP								
02...	1110	1.00	235	8.60	28.5	0.46	7.3	--
02...	1112	10.0	235	8.40	28.0	--	6.4	--
02...	1114	20.0	235	8.20	28.0	--	5.8	--
02...	1116	29.0	240	7.60	28.0	--	1.3	--

302323095341201 - LAKE CONROE SITE CC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB								
03...	1200	1.00	220	8.00	13.5	0.56	9.2	89
03...	1202	10.0	220	8.00	13.0	--	9.1	87
03...	1204	20.0	220	8.00	13.0	--	9.1	87
03...	1206	30.0	220	7.80	12.5	--	8.8	83
03...	1208	40.0	220	7.70	12.0	--	7.9	74
03...	1210	50.0	220	7.90	12.0	--	7.9	74
JUN								
04...	1116	1.00	230	8.60	28.0	0.88	8.3	--
04...	1118	10.0	230	8.00	26.5	--	7.7	96
04...	1120	20.0	235	7.40	24.5	--	3.1	37
04...	1122	30.0	240	7.30	24.0	--	2.0	24
04...	1124	40.0	240	7.30	23.0	--	0.6	7
04...	1126	50.0	250	7.50	22.5	--	0	0
SEP								
02...	1300	1.00	235	8.60	29.0	0.44	7.8	--
02...	1302	10.0	235	7.90	28.0	--	5.1	--
02...	1304	20.0	235	7.70	27.5	--	3.6	--
02...	1306	30.0	235	7.30	27.5	--	0.4	--
02...	1308	40.0	280	7.10	24.0	--	0	0
02...	1310	56.0	290	7.20	23.5	--	0	0

302320095334001 - LAKE CONROE SITE CL

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB								
03...	1142	1.00	220	8.10	13.5	0.59	9.6	92
03...	1144	10.0	220	8.00	13.5	--	9.4	90
03...	1146	20.0	220	7.90	13.5	--	8.9	86
03...	1148	30.0	220	7.80	12.0	--	8.5	79
03...	1150	40.0	220	7.80	12.0	--	8.5	79
03...	1152	45.0	220	7.70	12.0	--	8.2	76
JUN								
04...	1058	1.00	230	8.60	28.0	0.98	8.3	--
04...	1100	10.0	230	8.30	27.0	--	7.6	96
04...	1102	20.0	235	7.40	24.5	--	3.4	41
04...	1104	30.0	240	7.40	24.0	--	1.9	23
04...	1106	42.0	240	7.50	23.0	--	0	0
SEP								
02...	1240	1.00	235	8.50	29.0	0.52	8.3	--
02...	1242	10.0	235	8.00	28.0	--	5.7	--
02...	1244	20.0	235	7.70	28.0	--	5.1	--
02...	1246	30.0	235	7.40	27.0	--	1.9	24
02...	1248	41.0	275	7.20	25.0	--	0	0

302448095374101 - LAKE CONROE SITE DC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB								
03...	1220	1.00	220	8.20	15.5	0.53	9.7	98
03...	1222	10.0	220	8.10	15.0	--	9.4	93
03...	1224	20.0	220	7.80	13.5	--	8.5	82
03...	1226	30.0	225	7.70	13.0	--	7.3	69
JUN								
04...	1200	1.00	225	8.70	29.5	0.91	8.4	--
04...	1202	10.0	230	7.80	26.5	--	6.1	76
04...	1204	20.0	230	7.30	25.5	--	2.2	27
04...	1206	31.0	245	7.40	24.5	--	0	0
SEP								
02...	1322	1.00	235	8.70	29.5	0.39	8.2	--
02...	1324	10.0	235	8.30	28.5	--	5.7	--
02...	1326	20.0	235	7.90	28.0	--	4.5	--
02...	1328	30.0	240	7.70	28.0	--	0	--

08067600 LAKE CONROE NEAR CONROE, TX--Continued

302607095360901 - LAKE CONROE SITE EC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CACO3)
FEB									
03...	1244	1.00	220	8.20	14.0	0.71	10.0	97	79
03...	1246	10.0	220	8.20	14.0	--	9.9	96	--
03...	1248	20.0	220	8.20	14.0	--	9.8	95	--
03...	1250	30.0	220	8.10	13.5	--	9.7	93	--
03...	1252	40.0	220	8.10	13.5	--	9.5	92	84
JUN									
04...	1220	1.00	230	8.70	29.0	0.8	8.3	--	84
04...	1222	10.0	230	8.30	27.0	--	7.2	91	--
04...	1224	20.0	230	7.30	26.0	--	3.1	38	--
04...	1226	30.0	235	7.20	24.0	--	0	0	--
04...	1228	40.0	240	7.30	24.0	--	0	0	90
SEP									
02...	1340	1.00	235	8.70	30.0	0.48	7.9	--	87
02...	1342	10.0	235	8.00	28.5	--	5.2	--	--
02...	1344	20.0	235	7.70	28.0	--	3.7	--	--
02...	1346	30.0	240	7.30	27.5	--	0.5	--	--
02...	1348	40.0	290	7.20	25.5	--	0	0	100

DATE	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
FEB									
03...	6	28	2.2	12	0.6	3.1	73	11	20
03...	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--
03...	11	30	2.3	13	0.6	3.1	73	8.8	20
JUN									
04...	7	30	2.2	13	0.6	3.1	77	9.2	20
04...	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--
04...	6	32	2.4	13	0.6	3.2	84	9.0	20
SEP									
02...	8	31	2.3	13	0.6	3.5	79	7.9	21
02...	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--
02...	0	36	2.4	13	0.6	3.6	115	4.6	20

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB								
03...	8.6	130	<0.10	0.6	0.02	5.3	4	<1
03...	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--
03...	9.1	130	<0.10	0.8	0.04	--	9	7
JUN								
04...	8.1	130	<0.10	0.7	0.30	--	12	8
04...	--	--	--	--	--	--	--	--
04...	--	--	<0.10	0.6	0.04	--	20	160
04...	--	--	--	--	--	--	--	--
04...	9.5	140	<0.10	0.6	0.04	--	9	930
SEP								
02...	10	140	<0.10	0.9	0.05	--	7	28
02...	--	--	--	--	--	--	--	--
02...	--	--	<0.10	1.0	0.04	--	40	370
02...	--	--	--	--	--	--	--	--
02...	12	170	<0.10	3.8	0.35	--	1500	5300

08067600 LAKE CONROE NEAR CONROE, TX--Continued

302714095372201 - LAKE CONROE SITE FC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
FEB								
03...	1308	1.00	215	8.20	15.5	0.61	9.6	97
03...	1310	10.0	215	8.10	15.0	--	9.4	94
03...	1312	20.0	220	7.70	13.5	--	7.2	69
03...	1314	25.0	220	7.80	13.0	--	5.6	53
JUN								
04...	1246	1.00	210	8.70	29.5	0.64	8.2	--
04...	1248	10.0	210	8.40	27.5	--	7.8	--
04...	1250	24.0	225	7.50	25.5	--	0	0
SEP								
02...	1402	1.00	235	8.70	29.5	0.37	7.7	--
02...	1404	10.0	235	8.30	28.5	--	5.4	--
02...	1406	23.0	235	8.40	28.0	--	5.3	--

303129095360501 - LAKE CONROE SITE GC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CACO3)
FEB									
03...	1345	1.00	220	7.80	17.5	0.42	8.3	87	74
03...	1347	10.0	220	7.70	17.0	--	8.1	84	--
03...	1349	20.0	220	7.60	16.5	--	7.3	75	--
03...	1350	30.0	230	7.60	16.5	--	6.9	71	77
JUN									
04...	1322	1.00	185	8.90	30.5	0.48	9.5	--	65
04...	1324	10.0	135	6.70	27.5	--	1.6	--	--
04...	1326	20.0	135	6.70	25.0	--	0	0	--
04...	1328	31.0	135	6.80	24.5	--	0	0	44
SEP									
02...	1428	1.00	235	8.70	30.5	0.34	9.2	--	84
02...	1430	10.0	240	7.70	28.5	--	4.2	--	--
02...	1432	20.0	240	7.60	28.5	--	3.8	--	--
02...	1434	30.0	240	7.60	28.0	--	2.5	--	86

DATE	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)
FEB								
03...	12	26	2.2	14	0.7	3.0	62	11
03...	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--
03...	16	27	2.4	16	0.8	3.1	61	11
JUN								
04...	8	23	1.9	11	0.6	3.0	57	8.5
04...	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--
04...	1	15	1.5	7.7	0.5	2.8	43	13
SEP								
02...	9	30	2.3	13	0.6	3.6	75	8.1
02...	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--
02...	9	30	2.6	14	0.7	3.7	77	8.6

08067600 LAKE CONROE NEAR CONROE, TX--Continued

303129095360501 - LAKE CONROE SITE GC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
FEB								
03...	23	8.4	120	<0.10	0.8	0.05	87	2
03...	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--
03...	28	10	130	<0.10	0.8	0.08	43	24
JUN								
04...	17	8.8	110	<0.10	1.0	0.09	39	21
04...	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--
04...	11	12	91	<0.10	1.4	0.44	1300	710
SEP								
02...	22	11	130	<0.10	1.3	0.06	8	6
02...	--	--	--	--	--	--	--	--
02...	--	--	--	<0.10	1.4	0.10	<10	50
02...	23	11	140	<0.10	1.0	0.11	14	150

08067610 LAKE CONROE AT OUTFLOW WEIR NEAR CONROE, TX

LOCATION.--Lat 30°21'23", long 95°33'37", Montgomery County, Hydrologic Unit 12040101, on left side of stilling basin of outflow weir, 620 ft downstream from centerline of dam on West Fork San Jacinto River, 770 ft downstream from service outlet tower, 3.0 mi upstream from State Highway 105, and 7.4 mi west of Conroe.

DRAINAGE AREA.--445 mi^2.

PERIOD OF RECORD.--April 1973 to current year.

GAGE.--Water-stage recorder and sharp-crested weir. Datum of gage is 138.48 ft above National Geodetic Vertical Datum of 1929 (levels by San Jacinto River Authority).

REMARKS.--No estimated daily discharges. Records good. Discharge represents controlled outflow from service tower and does not constitute the total outflow from Lake Conroe. Uncontrolled low flows through weir published at West Fork San Jacinto River below Lake Conroe (station 08067650).

AVERAGE DISCHARGE.--13 years, 11.4 ft^3/s (8,260 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 339 ft^3/s Feb. 19-25, 1974; no controlled releases for many days.

EXTREMES FOR CURRENT YEAR.--No controlled releases were made during the year; maximum gage height, 9.16 ft Nov. 27 from 0500 to 1100 hours (result of backwater from taintor gate releases).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MEAN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CAL YR 1985 TOTAL 5215.00 MEAN 14.3 MAX 152 MIN .00 AC-FT 10340
WTR YR 1986 TOTAL .00 MEAN .00 MAX .00 MIN .00 AC-FT .00

08067650 WEST FORK SAN JACINTO RIVER BELOW LAKE CONROE NEAR CONROE, TX

LOCATION.--Lat 30°20'31", long 95°32'34", Montgomery County, Hydrologic Unit 12040101, on right bank at downstream side of bridge on State Highway 105, 3.0 mi downstream from Lake Conroe Dam, and 5.9 mi west of Conroe.

DRAINAGE AREA.--451 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1972 to current year (discharge for periods of outflow from Lake Conroe only).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 116.06 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 6-8, Dec. 25 to Jan. 21, and June 15-20. Records fair except those for estimated daily discharges, which are poor. Discharge is outflow from Lake Conroe, but floodflows may include local runoff. Discharge estimated during periods of backwater.

AVERAGE DISCHARGE.--14 years (water years 1973-86), 240 ft^3/s (173,900 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,780 ft^3/s May 22, 1983 (gage height, 35.50 ft); no flow for many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in November 1940 reached a stage of 41.94 ft, from information by the State Department of Highways and Public Transportation.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,650 ft^3/s June 9 at 0600 hours (gage height, 28.58 ft); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	.00	1180	1.2	1.3	.92	.32	226	41	.00	.00	.00
2	.00	.00	445	.90	1.3	.60	.32	1180	2.2	.00	.00	.00
3	.00	.00	26	1.2	1.6	.92	.32	1740	2.2	.00	.00	.00
4	.00	.00	2.0	1.4	176	1.3	.32	1580	2.4	.00	.00	.00
5	.00	.00	2.5	1.4	217	.92	.32	798	49	.00	.00	.00
6	.00	.00	95	.60	224	.92	.32	9.5	648	.00	.00	.00
7	.00	.00	50	1.2	215	.60	.32	.92	1810	.00	.00	.00
8	.00	.00	2.5	1.4	188	.32	.32	.92	2230	.00	.00	.00
9	.00	.00	2.0	1.2	188	.32	.32	.92	2620	.00	.00	.00
10	.00	.00	1.6	1.4	468	.60	.32	206	2430	.00	.00	.00
11	.00	2.1	392	1.6	242	.32	.32	588	2040	.00	.00	.00
12	.00	1.3	1080	1.8	9.1	.60	.32	623	2000	.00	.00	.00
13	.00	1.3	1460	1.8	1.6	.60	.32	337	1980	.00	.00	.00
14	.00	1.3	1390	1.8	2.5	.60	.32	8.0	1960	.00	.00	.00
15	.00	.60	1300	1.8	2.0	.60	.32	452	600	.00	.00	.00
16	.00	.00	1290	2.1	2.0	.60	.00	912	250	.00	.00	.00
17	.00	.32	1280	2.6	2.5	.00	.00	1220	300	.00	.00	.00
18	.00	1.3	706	2.6	2.0	.32	.00	1810	400	.00	.00	.00
19	.00	2.5	542	2.6	2.5	1.3	.00	2290	600	.00	.00	.00
20	.00	4.3	329	2.4	2.5	.92	.00	2030	600	.00	.00	.00
21	.00	3.3	25	2.5	2.9	.60	.00	1330	493	.00	.00	.00
22	.00	2.9	1.2	2.5	2.5	.32	.00	402	292	.00	.00	.00
23	.00	2.9	1.4	2.0	2.5	.32	.00	11	22	.00	.00	.00
24	.00	1350	1.6	1.6	2.0	.32	.00	5.1	1.3	.00	.00	.00
25	.00	1970	1.2	2.0	2.0	.32	.00	1060	.92	.00	.00	.00
26	.00	1950	.30	2.9	1.6	.32	.00	1950	.92	.00	.00	.00
27	.00	2420	.60	2.5	2.0	.32	.00	1900	.60	.00	.00	.00
28	.00	2400	.60	1.3	2.5	.32	.00	1660	.60	.00	.00	.00
29	.00	2360	.60	1.6	---	.32	.00	1500	.60	.00	.00	.00
30	.00	1930	.60	1.3	---	.32	.00	764	.30	.00	.00	.00
31	.00	---	1.4	1.3	---	.32	---	1010	---	.00	.00	---
TOTAL	3.60	14404.12	11610.10	54.50	1966.9	17.08	4.80	27604.36	21377.04	.00	.00	.00
MEAN	.12	480	375	1.76	70.2	.55	.16	890	713	.00	.00	.00
MAX	3.6	2420	1460	2.9	468	1.3	.32	2290	2620	.00	.00	.00
MIN	.00	.00	.30	.60	1.3	.00	.00	.92	.30	.00	.00	.00
AC-FT	7.1	28570	23030	108	3900	34	9.5	54750	42400	.00	.00	.00

CAL YR 1985 TOTAL 90927.58 MEAN 249 MAX 2620 MIN .00 AC-FT 180400
WTR YR 1986 TOTAL 77042.50 MEAN 211 MAX 2620 MIN .00 AC-FT 152800

08067650 WEST FORK SAN JACINTO RIVER BELOW LAKE CONROE NEAR CONROE, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical, biochemical, and pesticide analyses: October 1972 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3
FEB												
10...	1105	465	228	7.90	12.0	15	6.5	10.4	96	1.6	84	12

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)
FEB												
10...	30	2.3	12	0.6	3.2	72	9.3	20	0.1	8.8	130	15

DATE	SOLIDS, VOLATILE, SUSPENDED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)
FEB												
10...	6	<0.01	<0.10	0.04	0.46	0.5	0.02	10	<1	110	<1	<10

DATE	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)	PCB, TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)
FEB												
10...	<1	11	<1	3	<0.1	<1	<1	14	<0.1	<0.1	<0.01	<0.1

DATE	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALATHION, TOTAL (UG/L)
FEB												
10...	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

DATE	METHOXYCHLOR, TOTAL (UG/L)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
FEB												
10...	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01	<1	<0.01	<0.01	<0.01	<0.01

08067900 LAKE CREEK NEAR CONROE, TX
(Low-flow partial-record station)

LOCATION.--Lat 30°15'12", long 95°34'43", Montgomery County, Hydrologic Unit 12040101, at bridge on county road and 8.3 mi southwest of Conroe.

DRAINAGE AREA.--291 mi .

PERIOD OF RECORD.--Occasional discharge measurements: October 1968 to current year. Chemical analyses: November 1968 to current year. Chemical and biochemical analyses: October 1985 to September 1986.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 23...	1312	10	233	7.40	23.5	50	17	6.6	78	1.4	84	150
DEC 16...	1422	860	117	6.50	6.0	140	49	12.6	--	2.2	4100	3800
JAN 15...	1320	40	540	7.50	9.0	30	9.9	11.2	--	1.7	270	310
FEB 26...	1150	23	424	7.40	16.0	50	13	9.2	94	1.3	40	140
MAR 26...	0930	13	407	7.20	17.0	30	7.6	8.4	86	1.2	60	150
APR 23...	1034	13	373	7.20	19.5	55	30	8.4	91	1.5	170	200
MAY 28...	1014	215	403	7.60	23.0	100	47	7.0	81	2.2	370	950
JUN 30...	0834	27	291	7.20	27.5	30	28	7.3	--	2.0	20	390
JUL 29...	0835	5.0	288	7.50	28.0	30	7.5	5.6	--	0.8	44	230
AUG 21...	1105	22	221	7.20	26.5	30	14	6.8	84	0.8	52	250
SEP 08...	1055	150	213	7.50	25.0	120	88	7.6	92	2.4	850	1200

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT 23...	65	22	21	3.0	20	1	2.7	43	9.7	42	<0.1	17
DEC 16...	44	13	15	1.5	8.7	0.6	3.0	31	12	15	<0.1	11
JAN 15...	160	60	56	4.8	41	1	3.5	100	17	98	0.1	17
FEB 26...	120	37	43	4.0	33	1	2.5	87	12	71	0.2	17
MAR 26...	120	31	40	3.9	31	1	3.4	85	11	66	0.1	17
APR 23...	110	33	36	3.7	29	1	2.3	72	10	64	0.2	15
MAY 28...	130	37	47	3.8	27	1	4.4	96	11	63	0.1	19
JUN 30...	89	20	31	2.8	19	0.9	2.7	69	7.7	40	0.2	21
JUL 29...	74	17	25	2.8	22	1	2.3	57	6.0	47	0.1	20
AUG 21...	53	19	17	2.5	20	1	2.1	34	5.0	41	0.1	23
SEP 08...	68	12	24	2.0	13	0.7	4.1	56	11	21	0.2	13

08067900 LAKE CREEK NEAR CONROE, TX--Continued
(Low-flow partial-record station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
OCT 23...	140	17	6	--	0.01	<0.10	0.08	0.32	0.4	0.07	0.01	0.03
DEC 16...	85	52	8	--	0.03	<0.10	0.09	0.91	1.0	0.18	--	--
JAN 15...	300	26	5	--	<0.01	<0.10	0.02	0.58	0.6	0.09	0.05	0.15
FEB 26...	230	8	2	--	<0.01	<0.10	0.03	0.47	0.5	0.06	0.02	0.06
MAR 26...	220	8	1	--	<0.01	<0.10	0.03	0.57	0.6	0.05	0.02	0.06
APR 23...	200	34	6	--	0.01	<0.10	0.08	0.62	0.7	0.08	0.02	0.06
MAY 28...	230	--	--	--	--	--	0.05	0.95	1.0	--	--	--
JUN 30...	170	23	5	0.08	0.02	0.10	0.07	0.53	0.6	0.15	0.07	0.21
JUL 29...	160	13	10	--	<0.01	<0.10	0.02	0.28	0.3	0.10	0.05	0.15
AUG 21...	130	8	2	--	0.01	<0.10	0.02	0.28	0.3	0.12	0.05	0.15
SEP 08...	120	48	9	0.12	0.08	0.20	0.12	0.88	1.0	0.27	0.08	0.25

DATE	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	PHENOLS TOTAL (UG/L)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)
OCT 23...	4.9	7.0	2	1.00	0.10	<10	--	<10	--	1100	<100	--
DEC 16...	14	15	3	0.60	<0.10	<10	--	<10	--	3100	<100	--
JAN 15...	8.6	8.6	4	4.90	0.40	<10	--	<10	--	600	<100	--
FEB 26...	9.4	--	<1	5.20	0.70	<10	<1	<10	10	800	<100	<10
MAR 26...	5.9	6.2	3	6.80	0.50	<10	--	<10	--	740	<100	--
APR 23...	15	7.4	--	3.80	0.40	<10	--	<10	--	1900	100	--
MAY 28...	14	--	4	4.40	0.70	<10	<1	<10	7800	2200	<100	<10
JUN 30...	10	10	<1	1.30	0.20	<10	--	<10	--	1600	<100	--
JUL 29...	4.3	4.3	1	--	--	<10	--	<10	--	110	<100	--
AUG 21...	4.1	3.2	--	2.50	0.40	<10	<1	<10	1	670	<100	<10
SEP 08...	14	--	2	5.30	0.60	<10	--	--	--	2500	<100	--

DATE	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)
OCT 23...	100	--	<0.1	--	20	--	--	--	--	--	--	--
DEC 16...	50	--	<0.1	--	20	--	--	--	--	--	--	--
JAN 15...	80	--	<0.1	--	20	--	--	--	--	--	--	--
FEB 26...	120	32	<0.1	<0.1	<10	20	1.6	1.3	5.2	1.1	3.9	1.1
MAR 26...	170	--	<0.1	--	<10	--	--	--	--	--	--	--
APR 23...	190	--	<0.1	--	10	--	--	--	--	--	--	--
MAY 28...	190	91	<0.1	0.04	20	<10	2.5	1.8	5.0	2.0	4.1	1.8
JUN 30...	110	--	<0.1	--	<10	--	--	--	--	--	--	--
JUL 29...	50	--	0.1	--	10	--	--	--	--	--	--	--
AUG 21...	60	13	<0.1	0.01	<10	<10	--	--	--	--	--	--
SEP 08...	200	--	0.3	--	20	--	--	--	--	--	--	--

08067900 LAKE CREEK NEAR CONROE, TX--Continued
(Low-flow partial-record station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM DISSOLVED, EXTRACTION (UG/L)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 23...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 16...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 26...	0.12	0.7	<0.1	<1	<0.1	<1.0	<0.01	<0.1	<0.1	<1.0	<0.01	<0.1
MAR 26...	--	--	--	--	--	--	--	--	--	--	--	--
APR 23...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 28...	0.1	0.7	<0.1	<1	<0.1	<1.0	<0.01	<0.1	<0.1	<1.0	<0.01	<0.1
JUN 30...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 29...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 21...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 08...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 23...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 16...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 26...	<0.01	<0.1	<0.01	<0.1	<0.01	<0.2	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1
MAR 26...	--	--	--	--	--	--	--	--	--	--	--	--
APR 23...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 28...	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1
JUN 30...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 29...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 21...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 08...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	ETHION, TOTAL (UG/L)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)
OCT 23...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 16...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 26...	<0.01	<0.2	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.5	<0.01	<0.1
MAR 26...	--	--	--	--	--	--	--	--	--	--	--	--
APR 23...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 28...	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1
JUN 30...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 29...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 21...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 08...	--	--	--	--	--	--	--	--	--	--	--	--

08067900 LAKE CREEK NEAR CONROE, TX--Continued
(Low-flow partial-record station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	METHYL PARA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI- THION, TOTAL (UG/L)	METHYL TRI- THION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PARA- THION, TOTAL (UG/L)	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PER- THANE TOTAL (UG/L)	PER- THANE IN BOT- TOM MA- TERIAL (UG/KG)	PHORATE OTAL (UG/L)	SILVEX, TOTAL (UG/L)
OCT 23...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 16...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 26...	<0.01	<0.2	<0.01	<1.0	<0.01	<0.1	<0.01	<0.2	<0.1	<1.00	--	<0.01
MAR 26...	--	--	--	--	--	--	--	--	--	--	--	--
APR 23...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 28...	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.1	<1.00	<0.01	<0.01
JUN 30...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 29...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 21...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 08...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOX- APHENE, TOTAL (UG/L)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL TRI- THION (UG/L)	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP, IN BOTTOM MAT. (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
OCT 23...	--	--	--	--	--	--	--	--	--	--	--
DEC 16...	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--	--
FEB 26...	<0.1	<1	<10	<0.01	<0.2	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1
MAR 26...	--	--	--	--	--	--	--	--	--	--	--
APR 23...	--	--	--	--	--	--	--	--	--	--	--
MAY 28...	<0.1	<1	<10	<0.01	<0.1	0.12	<0.1	<0.01	<0.1	<0.01	<0.1
JUN 30...	--	--	--	--	--	--	--	--	--	--	--
JUL 29...	--	--	--	--	--	--	--	--	--	--	--
AUG 21...	--	--	--	--	--	--	--	--	--	--	--
SEP 08...	--	--	--	--	--	--	--	--	--	--	--

08068000 WEST FORK SAN JACINTO RIVER NEAR CONROE, TX
(National stream-quality accounting network)

LOCATION.--Lat 30°14'40", long 95°27'25", Montgomery County, Hydrologic Unit 12040101, near right bank at downstream side of pier of bridge on Interstate Highway 45 and U.S. Highway 75, 300 ft upstream from Missouri Pacific Railroad Co. bridge, 3.5 mi downstream from Lake Creek, 4.2 mi south of Conroe, and at mile 79.

DRAINAGE AREA.--828 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1924 to September 1927, July 1939 to current year.

REVISED RECORDS.--WSP 1058: 1926. WSP 1732: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 95.03 ft above National Geodetic Vertical Datum of 1929. May 7, 1924, to Sept. 30, 1927, nonrecording gage at railroad bridge 285 ft downstream at datum 30.10 ft higher. July 13, 1939, to Sept. 30, 1963, water-stage recorder at datum 5.0 ft higher.

REMARKS.--Estimated daily discharges: Oct. 14-18, Oct. 28 to Nov. 4, Jan. 26, Feb. 3, 13-16, and July 20 to Aug. 12. Records good except those for estimated daily discharges, which are fair. Flow has been regulated since Jan. 9, 1973,
by Lake Conroe (station 08067600), capacity 532,000 acre-ft, 14.5 mi upstream. There are no other large diversions above station. Gage-height telemeter at station.

AVERAGE DISCHARGE.--36 years (water years 1925-27, 1940-72) prior to regulation by Lake Conroe, 477 ft³/s (345,600 acre-ft/yr); 14 years (water years 1973-86) regulated, 561 ft³/s (406,400 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 110,000 ft³/s Nov. 25, 1940 (gage height, 30.85 ft), present datum, from rating curve extended above 43,000 ft³/s on basis of velocity-area studies; no flow June 14, 1956, and Sept. 19 to Oct. 1, 1965, result of temporary dams.
Maximum stage since at least December 1913, that of Nov. 25, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in December 1913 reached a stage of 30.2 ft, present site and datum, from information by Missouri Pacific Railroad Co., discharge 101,000 ft³/s, from rating curve as explained above.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,800 ft³/s Nov. 25 at 1700 hours (gage height, 21.86 ft); minimum daily, 19 ft³/s Aug. 20-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	140	2340	96	61	79	39	229	714	67	25	68
2	43	120	1330	94	61	57	38	1100	390	62	24	61
3	36	240	544	92	65	61	38	1990	253	56	25	49
4	32	215	401	89	190	160	38	2140	175	52	24	57
5	29	143	372	91	388	96	38	1870	191	48	24	99
6	28	169	280	87	614	77	37	473	841	46	30	90
7	28	154	309	81	407	68	37	193	2170	65	27	96
8	28	94	188	83	405	61	37	119	3700	52	23	125
9	28	72	164	90	298	58	37	91	4560	43	22	141
10	28	62	150	101	688	56	52	82	4820	41	21	113
11	27	738	550	100	710	55	73	587	4440	39	23	86
12	27	2030	2170	103	366	113	61	700	3330	38	25	65
13	28	658	2890	142	260	104	54	665	2650	35	22	69
14	30	630	2580	127	180	81	49	188	2590	34	21	126
15	53	843	2720	102	150	68	44	290	2240	35	22	125
16	80	440	2420	91	130	62	41	943	852	34	21	68
17	167	212	1710	119	115	57	37	1210	495	33	20	59
18	69	142	1170	339	105	55	36	2400	732	33	20	55
19	45	540	835	408	95	54	36	2930	1410	31	21	107
20	44	1060	633	401	87	65	77	3440	1840	30	19	96
21	40	640	304	365	80	54	66	2910	1670	29	19	100
22	45	255	184	148	75	47	51	1320	1020	28	19	67
23	42	152	160	97	70	44	41	359	437	28	23	63
24	44	3810	144	76	65	43	37	168	199	27	34	52
25	43	14500	138	71	62	43	35	712	145	27	26	44
26	41	10000	125	71	60	42	33	1730	118	26	23	51
27	67	4400	112	76	60	42	32	1970	143	25	25	53
28	108	3420	108	73	63	42	80	1780	99	25	50	43
29	123	3090	104	66	---	41	57	1760	84	24	51	55
30	111	2940	100	63	---	40	44	1270	75	24	37	41
31	120	---	99	62	---	39	---	1460	---	23	41	---
TOTAL	1706	51909	25334	4004	5910	1964	1375	37079	42383	1160	807	2324
MEAN	55.0	1730	817	129	211	63.4	45.8	1196	1413	37.4	26.0	77.5
MAX	167	14500	2890	408	710	160	80	3440	4820	67	51	141
MIN	27	62	99	62	60	39	32	82	75	23	19	41
AC-FT	3380	103000	50250	7940	11720	3900	2730	73550	84070	2300	1600	4610

CAL YR 1985	TOTAL 208981	MEAN	573	MAX	14500	MIN	23	AC-FT 414500
WTR YR 1986	TOTAL 175955	MEAN	482	MAX	14500	MIN	19	AC-FT 349000

08068000 WEST FORK SAN JACINTO RIVER NEAR CONROE, TX--Continued
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WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: March 1959 to current year. Pesticide analyses: October 1975 to June 1982. Sediment records: October 1986 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1961 to current year.
WATER TEMPERATURES: October 1961 to current year.

INSTRUMENTATION.--Beginning October 1980 specific conductance and temperature are recorded continuously at this station.

REMARKS.--Interruptions in the record were due to malfunctions of the instrument. Where maximum or minimum specific conductance values are not shown, mean value is estimated. Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the Geological Survey District office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 848 microsiemens June 29, 1985; minimum daily, 40 microsiemens Nov. 24, 1985.
WATER TEMPERATURES: Maximum daily, 37.0°C June 26, 1984; minimum daily, 0.0°C Dec. 22, 1963, Jan. 31, 1968.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 549 microsiemens Mar. 25; minimum daily, 40 microsiemens Nov. 24.
WATER TEMPERATURES: Maximum daily, 32.5°C July 21, 22, 23; minimum daily, 2.0°C Mar. 1.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)
NOV											
06...	1142	170	183	7.30	14.0	100	57	10.6	102	4.9	180
25...	1245	15200	65	7.20	19.5	100	70	7.6	83	4.0	2700
FEB											
04...	1300	212	301	7.00	19.0	50	32	7.8	84	3.7	2000
12...	1325	352	301	7.80	8.0	70	82	12.4	--	3.0	4900
MAR											
20...	1117	66	355	7.20	16.0	40	7.3	9.6	96	0.9	--
MAY											
07...	1050	192	243	6.80	23.0	70	40	8.2	95	2.7	170
20...	1048	3500	218	7.50	21.5	50	33	7.4	84	2.0	110
AUG											
06...	1025	33	288	7.30	26.0	50	58	4.8	59	5.0	6000
20...	1055	19	379	7.10	26.5	10	12	7.6	94	1.2	88

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
NOV											
06...	270	56	11	19	2.1	15	0.9	3.9	45	16	21
25...	4200	21	8	6.8	0.89	3.7	0.4	3.3	13	10	6.6
FEB											
04...	2200	70	8	23	3.1	30	2	3.0	62	13	44
12...	5000	97	22	34	3.0	23	1	3.7	75	12	42
MAR											
20...	--	89	15	30	3.5	32	2	2.8	74	11	51
MAY											
07...	260	70	13	24	2.4	18	1	4.0	57	12	31
20...	850	76	11	27	2.2	12	0.6	3.5	65	10	19
AUG											
06...	4500	63	0	20	3.0	30	2	4.4	63	14	38
20...	80	66	0	21	3.3	43	2	4.6	75	15	53

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
NOV											
06...	0.1	18	139	130	49	6	0.35	--	0.05	<0.01	0.40
25...	<0.1	5.2	--	44	74	6	--	--	0.03	--	<0.10
FEB											
04...	0.1	14	--	170	68	10	0.88	--	0.02	--	0.90
12...	0.1	13	190	180	80	20	0.27	--	0.03	<0.01	0.30
MAR											
20...	0.2	17	--	190	17	4	--	--	<0.01	--	0.80
MAY											
07...	<0.1	16	174	140	34	7	0.27	0.29	0.03	0.01	0.30
20...	0.2	10	--	120	48	8	--	--	0.02	--	<0.10
AUG											
06...	0.2	18	165	170	52	18	0.87	0.89	0.03	0.01	0.90
20...	0.3	23	--	210	25	16	2.56	--	0.04	--	2.60

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WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)
NOV											
06...	0.47	0.10	0.05	1.0	1.1	0.49	0.35	0.32	0.98	17	54
25...	--	0.09	--	0.71	0.8	0.11	--	--	--	11	--
FEB											
04...	--	0.07	--	1.0	1.1	0.45	--	--	--	25	--
12...	0.27	0.08	0.06	0.82	0.9	0.19	0.12	0.09	0.28	16	93
MAR											
20...	--	<0.01	--	--	0.6	0.41	--	--	--	7.1	--
MAY											
07...	0.30	0.06	0.07	0.94	1.0	0.33	0.24	0.19	0.58	15	100
20...	--	0.05	--	0.75	0.8	0.13	--	--	--	9.8	--
AUG											
06...	0.90	0.03	0.03	0.67	0.7	1.00	0.76	0.78	2.4	9.2	57
20...	--	0.16	--	0.64	0.8	1.80	--	--	--	4.6	--

DATE	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)
NOV											
06...	25	96	170	2	75	<0.5	<1	<1	<3	3	4
25...	--	--	--	--	--	--	--	--	--	--	--
FEB											
04...	--	--	--	--	--	--	--	--	--	--	--
12...	88	96	90	1	110	<0.5	<1	<1	<3	5	150
MAR											
20...	--	--	--	--	--	--	--	--	--	--	--
MAY											
07...	52	74	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
AUG											
06...	5.1	97	60	2	77	<0.5	<1	<1	<3	1	61
20...	--	--	--	--	--	--	--	--	--	--	--

DATE	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
NOV											
06...	<1	4	19	<0.1	<10	2	<1	<1	82	<6	35
25...	--	--	--	--	--	--	--	--	--	--	--
FEB											
04...	--	--	--	--	--	--	--	--	--	--	--
12...	3	<4	42	<0.1	<10	4	<1	<1	120	<6	25
MAR											
20...	--	--	--	--	--	--	--	--	--	--	--
MAY											
07...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
AUG											
06...	<5	7	57	<0.1	<10	2	<1	<1	170	<6	10
20...	--	--	--	--	--	--	--	--	--	--	--

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MONTHLY AND ANNUAL MEANS AND LOADS FOR OCTOBER 1985 TO SEPTEMBER 1986

MONTH YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-MHOS)	DIS-SOLVED SOLIDS (MG/L)	DIS-SOLVED SOLIDS (TONS)	DIS-SOLVED CHLORIDE (MG/L)	DIS-SOLVED CHLORIDE (TONS)	DIS-SOLVED SULFATE (MG/L)	DIS-SOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT. 1985	1706	318	177	815	46	212	9.8	45	84
NOV. 1985	51909	120	70	9750	13	1840	5.6	780	38
DEC. 1985	25334	201	115	7880	24	1660	8.4	573	61
JAN. 1986	4004	313	174	1880	45	487	9.7	105	83
FEB. 1986	5910	303	169	2700	43	688	9.7	154	81
MAR. 1986	1964	348	192	1020	53	280	9.6	51	88
APR. 1986	1375	365	201	747	56	209	9.7	36	91
MAY 1986	37079	242	137	13700	32	3180	8.9	894	69
JUNE 1986	42383	219	125	14300	27	3110	8.8	1010	65
JULY 1986	1160	349	193	605	53	165	9.9	31	89
AUG. 1986	807	381	209	455	60	131	9.6	21	93
SEPT 1986	2324	268	151	946	36	227	9.4	59	75
TOTAL	175955	**	**	54800	**	12200	**	3760	**
WTD.AVG.	482	203	115	**	26	**	7.9	**	59

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	278	242	264	251	237	243	212	180	194	307	292	299
2	298	272	283	236	216	224	200	193	196	312	295	304
3	308	287	293	224	216	220	200	191	195	315	298	307
4	336	290	307	216	193	203	226	198	210	323	304	313
5	308	289	301	191	186	189	247	228	238	322	302	312
6	300	265	292	217	104	188	237	221	226	338	318	327
7	294	267	279	222	205	214	270	229	240	368	322	338
8	323	276	302	243	208	221	249	234	240	342	317	328
9	324	226	289	276	237	251	256	237	246	330	313	320
10	323	269	301	312	251	274	269	244	254	326	287	317
11	351	272	308	384	74	209	263	152	209	315	291	303
12	323	243	292	105	73	85	180	159	170	334	315	321
13	324	273	312	119	96	104	194	161	176	349	332	341
14	322	271	309	113	65	85	212	191	203	---	---	390
15	333	196	262	83	63	70	190	178	182	474	445	461
16	268	223	248	103	76	84	196	178	184	441	405	423
17	324	270	294	103	86	97	220	197	211	402	294	344
18	346	278	303	99	82	89	225	219	222	313	244	264
19	377	347	364	91	60	73	230	224	227	262	248	255
20	379	357	367	62	51	54	233	228	231	278	264	272
21	397	378	389	64	53	59	248	233	239	288	264	271
22	418	396	407	75	64	68	261	245	250	367	294	337
23	419	386	411	83	75	78	266	252	258	374	358	368
24	390	370	378	83	40	64	282	262	268	368	347	358
25	392	381	386	80	51	62	290	266	277	358	339	350
26	398	388	393	154	83	116	304	285	292	355	321	338
27	396	319	365	205	157	186	298	280	290	349	311	332
28	343	313	331	214	207	211	298	282	289	345	323	336
29	337	326	330	224	214	220	296	280	288	356	328	341
30	329	306	323	226	212	222	301	283	292	357	329	346
31	304	253	278	---	---	---	308	287	299	357	330	347
MONTH	419	196	321	384	40	149	308	152	235	474	244	331

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SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	359	333	347	359	311	335	419	396	405	450	296	380
2	354	327	342	352	323	337	419	396	408	422	319	386
3	349	324	337	349	304	329	411	402	407	419	251	312
4	351	252	302	336	206	249	410	391	404	255	212	235
5	256	206	236	309	223	289	417	382	399	215	202	208
6	235	187	211	329	294	310	386	356	375	287	214	249
7	258	236	246	336	313	326	385	347	369	343	286	313
8	324	260	280	352	314	328	376	348	366	400	337	370
9	427	313	366	349	302	324	---	---	350	451	401	425
10	300	273	287	355	327	340	374	281	332	467	452	458
11	365	278	323	408	332	356	331	257	290	458	406	430
12	373	289	310	384	251	314	340	289	306	409	367	390
13	379	366	373	329	273	294	347	314	332	364	309	333
14	363	336	350	339	311	326	359	341	351	340	319	329
15	339	320	328	351	333	342	355	320	342	365	332	350
16	326	314	321	350	318	335	---	---	350	329	275	300
17	329	312	322	360	316	337	---	---	367	280	206	232
18	333	312	324	382	341	364	---	---	381	203	187	194
19	350	327	337	397	359	376	---	---	400	192	179	186
20	366	337	350	420	376	393	---	---	343	186	183	185
21	371	344	355	413	388	400	---	---	348	189	184	187
22	381	341	357	437	391	410	---	---	352	211	184	199
23	380	346	362	455	404	425	384	338	354	221	207	217
24	378	347	364	510	484	485	416	362	379	280	246	256
25	373	347	363	549	380	515	402	374	388	354	225	260
26	374	342	360	413	343	377	432	365	393	247	245	246
27	377	350	362	447	373	413	499	427	459	248	245	246
28	366	309	343	458	436	445	486	234	361	266	247	253
29	---	---	---	455	415	425	466	331	406	268	243	251
30	---	---	---	445	423	431	447	403	425	244	210	235
31	---	---	---	426	394	405	---	---	---	224	210	217
MONTH	427	187	328	549	206	366	499	234	371	467	179	285

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	224	205	213	356	310	329	---	---	380	379	314	341
2	258	206	241	358	302	332	---	---	383	413	385	405
3	267	234	247	369	330	351	---	---	372	397	329	358
4	313	260	283	384	345	364	---	---	379	330	300	318
5	293	265	281	384	321	349	---	---	384	---	---	275
6	281	201	237	355	304	335	---	---	345	---	---	282
7	230	198	218	379	196	269	---	---	356	---	---	263
8	222	193	210	358	266	304	375	347	360	---	---	221
9	205	191	202	369	328	349	390	346	374	213	208	210
10	208	203	205	371	324	349	408	342	381	242	206	216
11	215	195	209	357	324	343	388	338	367	264	234	246
12	236	214	228	367	328	350	376	348	363	283	241	263
13	253	237	243	366	327	347	392	371	382	277	235	259
14	251	245	248	383	322	348	407	383	395	267	197	223
15	250	244	246	389	327	353	433	402	422	216	173	195
16	258	248	254	375	335	352	465	413	435	271	216	247
17	262	229	250	383	332	362	451	411	437	300	262	284
18	295	215	259	378	342	364	446	381	415	303	296	300
19	213	190	196	387	348	372	453	372	418	312	195	239
20	195	183	189	395	339	369	449	371	413	240	210	222
21	188	184	186	377	337	359	454	389	424	260	229	249
22	211	188	199	395	358	370	463	405	426	296	253	278
23	238	208	223	416	359	390	486	408	432	328	296	309
24	266	239	250	387	375	382	436	378	399	346	328	335
25	272	232	255	---	---	378	403	389	397	377	347	362
26	302	268	281	---	---	377	416	390	407	382	277	349
27	321	217	268	---	---	381	444	396	413	312	269	286
28	295	277	285	---	---	384	425	390	414	313	272	291
29	312	281	291	---	---	382	358	268	284	345	293	324
30	324	297	308	---	---	375	356	294	320	351	316	332
31	---	---	---	---	---	371	375	326	337	---	---	---
MONTH	324	183	240	416	196	356	486	268	388	413	173	283

08068000 WEST FORK SAN JACINTO RIVER NEAR CONROE, TX--Continued
(National stream-quality accounting network)

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	22.0	19.5	21.0	17.0	15.0	16.5	17.0	15.5	16.5	13.0	11.5	12.0
2	22.0	19.5	21.0	16.5	15.5	16.0	15.5	13.5	14.5	14.0	11.5	12.5
3	22.5	18.0	20.0	16.0	14.5	15.0	13.5	12.0	12.5	14.0	11.5	13.0
4	24.0	19.0	21.5	15.5	13.5	14.5	13.5	12.5	13.0	15.0	13.0	13.5
5	22.0	18.5	20.5	16.0	13.0	14.5	13.0	12.5	13.0	13.0	11.0	12.0
6	21.0	16.0	18.5	16.0	13.0	15.0	13.0	11.5	12.0	12.0	9.5	11.0
7	21.0	16.5	19.0	16.5	14.5	15.5	13.5	12.0	13.0	12.0	11.5	12.0
8	23.0	19.0	21.0	18.0	14.5	16.5	15.0	13.0	14.0	11.5	9.5	10.5
9	24.5	21.0	22.5	20.0	17.5	19.0	16.5	14.5	15.5	9.5	9.0	9.0
10	25.5	22.0	23.5	22.0	19.5	20.5	17.5	16.0	17.0	10.5	8.5	9.5
11	26.0	23.5	24.5	21.5	20.0	20.5	18.0	12.5	15.0	10.5	8.0	9.5
12	26.5	23.5	24.5	20.5	20.0	20.5	12.5	11.0	11.5	11.0	8.0	9.5
13	27.0	24.0	25.5	21.5	20.5	21.0	11.0	10.0	10.5	10.0	8.5	9.0
14	27.0	24.5	25.5	22.5	21.5	22.0	10.0	9.0	9.5	11.0	7.5	9.5
15	25.0	22.5	23.5	22.5	21.5	22.0	9.0	8.0	8.0	12.0	8.5	11.0
16	23.0	21.5	22.5	21.5	20.0	20.5	10.0	8.5	9.0	12.5	11.0	11.5
17	23.5	22.0	23.0	21.0	19.5	20.5	11.5	10.0	10.5	14.0	12.5	13.0
18	25.0	23.0	24.0	22.0	20.5	21.5	11.5	11.0	11.5	13.0	12.0	12.5
19	25.0	23.0	24.0	21.5	21.0	21.5	11.5	10.5	11.0	12.5	11.0	12.0
20	24.5	22.5	23.5	21.0	19.0	20.0	11.5	10.0	11.0	13.0	11.0	12.0
21	23.5	22.5	23.0	19.0	18.5	18.5	11.0	9.5	10.5	14.0	12.5	13.0
22	24.0	22.5	23.5	18.5	17.5	18.0	11.5	9.5	10.5	15.5	13.5	14.5
23	25.5	22.5	24.0	19.5	18.0	18.5	12.5	11.0	11.5	15.0	12.5	13.5
24	25.5	23.0	24.0	19.5	19.0	19.0	12.0	10.5	11.5	14.5	12.5	13.5
25	24.0	22.5	23.5	20.0	19.0	19.5	11.0	9.0	10.0	16.0	14.0	15.0
26	23.5	22.0	22.5	20.5	20.0	20.0	10.5	7.5	9.0	14.0	12.0	13.0
27	22.0	21.0	21.5	20.5	19.5	20.0	12.0	10.5	11.0	12.5	10.0	11.0
28	21.0	18.5	19.5	19.5	18.0	18.5	13.5	11.5	12.5	13.5	8.5	11.0
29	18.0	17.5	18.0	18.0	17.5	17.5	12.5	11.0	11.5	16.5	12.0	14.0
30	17.5	16.5	17.0	17.5	17.0	17.0	13.0	10.5	12.0	17.5	14.0	15.5
31	18.0	15.5	16.5	---	---	---	14.5	13.0	14.0	18.5	16.0	17.0
MONTH	27.0	15.5	22.0	22.5	13.0	18.5	18.0	7.5	12.0	18.5	7.5	12.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	19.0	17.5	18.0	16.0	2.0	8.5	23.0	19.0	21.5	24.0	21.0	22.0
2	20.0	18.5	19.0	23.0	5.0	15.0	23.5	20.0	21.5	21.5	21.0	21.5
3	20.0	19.0	19.5	22.5	13.0	16.5	22.5	20.5	21.5	22.5	21.0	21.5
4	19.5	16.0	18.5	17.5	10.5	15.0	24.0	21.0	22.0	22.5	20.5	21.5
5	15.5	12.5	15.0	19.5	7.0	13.5	25.0	22.0	23.5	22.5	21.0	22.0
6	15.5	13.5	14.5	20.0	10.0	14.5	25.0	22.5	23.5	25.0	21.5	23.0
7	14.0	13.0	13.5	22.5	5.5	14.0	25.0	22.0	23.5	25.5	23.0	24.5
8	14.0	13.5	14.0	23.0	9.0	16.5	27.5	22.0	24.0	26.0	23.5	25.0
9	13.0	11.5	12.5	25.5	17.0	20.5	---	---	---	27.0	24.0	25.5
10	11.5	11.0	11.5	27.0	19.0	22.5	18.0	17.0	17.5	25.5	22.0	24.0
11	10.5	9.0	10.0	22.5	16.5	21.0	19.0	16.5	17.5	24.5	22.0	23.0
12	9.5	7.5	8.5	21.0	14.5	17.5	23.5	19.0	21.0	25.0	23.0	24.0
13	9.0	7.5	8.0	23.5	12.5	17.5	24.5	21.5	23.0	25.5	23.0	24.0
14	13.5	9.0	11.0	22.0	10.5	16.0	25.0	22.0	23.0	25.0	23.0	24.5
15	16.0	5.5	11.0	21.5	10.5	15.0	25.0	19.5	22.5	24.5	23.0	23.5
16	22.5	14.0	18.0	23.5	9.0	16.5	---	---	---	23.5	22.0	23.0
17	23.0	14.0	19.5	24.0	10.5	18.0	---	---	---	23.5	22.0	23.0
18	26.0	12.5	19.5	23.0	18.5	21.0	---	---	---	22.5	21.5	22.0
19	26.5	17.5	21.0	19.5	17.0	18.0	---	---	---	22.5	21.5	22.0
20	27.5	15.5	20.0	19.5	15.0	17.0	---	---	---	22.5	21.5	22.0
21	17.0	10.0	12.5	19.0	14.0	16.5	---	---	---	23.5	22.0	22.5
22	16.0	7.5	11.5	19.0	13.0	16.0	---	---	---	24.5	22.0	23.5
23	19.0	4.5	11.5	20.5	14.0	17.0	24.0	19.5	22.5	23.5	23.0	23.0
24	22.5	6.5	14.0	21.0	15.0	18.0	24.0	20.0	22.0	27.5	24.5	25.5
25	23.0	8.0	15.5	20.0	15.5	18.0	23.5	20.5	22.0	26.0	23.5	24.5
26	25.5	11.5	18.0	20.5	17.0	19.0	23.5	21.0	22.5	24.5	23.5	24.0
27	22.0	13.0	17.0	22.0	17.5	20.0	24.0	21.5	23.0	25.0	24.5	24.5
28	12.5	5.0	10.0	23.0	17.5	20.5	24.0	21.5	23.0	26.0	24.5	25.0
29	---	---	---	23.0	18.0	20.5	24.5	23.0	24.0	26.0	24.5	25.5
30	---	---	---	23.0	18.0	21.0	25.0	23.0	24.0	25.5	24.5	25.0
31	---	---	---	23.5	18.5	21.0	---	---	---	25.0	24.5	24.5
MONTH	27.5	4.5	14.5	27.0	2.0	17.5	27.5	16.5	22.0	27.5	20.5	23.5

08068000 WEST FORK SAN JACINTO RIVER NEAR CONROE, TX--Continued
(National stream-quality accounting network)

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY	
1	25.5	24.0	25.0	31.5	28.0	29.5
2	27.5	24.0	26.0	32.0	27.5	29.5
3	28.5	25.0	26.5	31.5	28.0	30.0
4	27.5	26.0	26.5	31.5	27.5	29.5
5	27.5	25.0	26.0	31.5	28.0	30.0
6	26.0	25.0	25.5	30.5	28.0	29.0
7	26.0	25.0	25.5	30.0	26.5	28.0
8	25.5	25.0	25.0	31.0	26.5	28.5
9	25.5	25.0	25.5	30.5	26.5	28.5
10	26.0	20.5	25.5	30.0	27.0	28.5
11	26.0	25.5	25.5	31.5	27.0	29.0
12	27.0	25.5	26.0	31.5	27.5	29.5
13	27.0	26.0	26.5	32.0	28.0	30.0
14	27.0	26.0	26.5	31.5	27.5	29.5
15	27.0	26.0	26.5	30.0	27.0	29.0
16	28.0	26.0	27.0	30.5	26.5	28.5
17	27.5	26.0	26.5	31.5	26.5	29.5
18	28.0	25.5	26.5	31.5	27.5	29.5
19	27.0	26.0	26.5	32.0	27.5	30.0
20	27.5	26.0	27.0	31.5	28.0	30.0
21	28.0	26.5	27.5	32.5	28.0	30.5
22	29.0	27.5	28.0	32.5	28.5	30.5
23	30.0	27.0	28.0	32.5	28.5	30.5
24	30.0	26.5	28.0	30.5	28.5	29.5
25	30.5	27.0	28.5	---	---	---
26	29.0	26.5	27.5	---	---	---
27	29.5	25.5	27.5	---	---	---
28	31.0	27.0	29.0	---	---	---
29	31.5	27.5	29.5	---	---	---
30	31.0	27.5	29.5	---	---	---
31	---	---	---	---	---	---
MONTH	31.5	20.5	27.0	32.5	26.5	29.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN
		AUGUST			SEPTEMBER	
1	---	---	---	27.5	25.0	26.0
2	---	---	---	28.0	25.5	26.5
3	---	---	---	28.0	25.5	27.0
4	---	---	---	28.0	25.5	26.5
5	---	---	---	---	---	---
6	---	---	---	---	---	---
7	---	---	---	---	---	---
8	31.0	29.0	30.0	---	---	---
9	29.5	27.0	28.5	28.0	26.5	27.5
10	31.0	26.5	28.5	28.5	26.0	27.0
11	29.0	26.5	27.5	29.5	26.5	28.0
12	29.5	25.5	27.0	28.5	27.0	27.5
13	30.0	26.0	28.0	28.0	26.0	27.0
14	30.5	26.5	28.5	27.5	25.5	26.5
15	29.5	27.0	28.5	28.0	25.5	26.5
16	30.0	27.0	28.5	27.0	25.5	26.5
17	31.0	27.0	29.0	27.0	25.0	26.0
18	31.5	27.5	29.5	26.0	24.5	25.5
19	31.5	27.5	29.0	25.5	24.0	25.0
20	30.5	26.5	28.5	26.0	24.0	25.0
21	29.5	26.5	28.5	25.5	24.5	25.0
22	29.0	25.5	27.5	26.5	24.0	25.0
23	28.5	25.5	26.5	26.5	24.5	25.5
24	29.0	24.5	26.0	27.0	24.5	25.5
25	29.5	25.5	27.5	26.5	24.5	25.5
26	29.0	26.0	27.5	26.5	24.5	25.5
27	29.5	26.0	27.5	27.5	25.0	26.0
28	29.5	26.0	27.5	27.0	25.5	26.0
29	27.0	23.5	25.0	27.0	25.0	26.0
30	27.0	23.0	25.0	27.5	25.5	26.5
31	27.0	24.0	25.5	---	---	---
MONTH	31.5	23.0	27.5	29.5	24.0	26.0

08068090 WEST FORK SAN JACINTO RIVER ABOVE LAKE HOUSTON NEAR PORTER, TX

LOCATION.--Lat 30°05'09", long 95°17'59", Montgomery County, Hydrologic Unit 12040101, on left bank, 4.4 mi southwest of Porter, 5.0 mi upstream from Spring Creek and 6.2 mi northwest of Humble.

DRAINAGE AREA.--962 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, at site 1.7 mi downstream, water years 1968-72, 1974-75. February to March 1984 (discharge measurements only). May 1984 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 33 ft above National Geodetic Vertical Datum of 1929, from topographic map (and levels).

REMARKS.--Estimated daily discharges: Oct. 28-31, Nov. 3-6, 11-16, 24-30, Dec. 1, and Feb. 7-19. Records good except those for estimated daily discharge, which are poor. There is considerable regulation during high flow periods by Lake Conroe, capacity 532,000 acre-ft, 34.3 mi upstream. During periods of low base flow in tributaries entering Lake Houston, occasional releases are made from Lake Conroe in order to maintain water levels in Lake Houston, which has several large diversions. There are no large diversions upstream from station. There is only minor sewage effluent discharge from the city of Conroe and other small communities into the river upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge (estimated), 20,000 ft³/s Nov. 26, 1986 (gage height, 26.97 ft), from rating curve extended above 4,800 ft³/s on basis of records for station 08068000; minimum daily, 26 ft³/s Sept. 18, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge (estimated), 20,000 ft³/s Nov. 26 at about 0600 hours (gage height, 26.97 ft), from rating curve extended above 4,800 ft³/s on basis of records for station 08068000; minimum daily, 30 ft³/s Aug. 2, 4, 5 and 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	229	200	2990	132	86	91	57	99	1580	118	32	68
2	104	189	2160	130	84	93	57	1140	704	104	30	86
3	74	280	927	125	175	102	56	1770	450	93	32	72
4	62	250	520	123	1250	508	58	2120	378	84	30	71
5	55	200	476	112	1120	298	57	2130	295	74	30	96
6	53	180	372	119	4140	172	56	1030	589	78	36	206
7	46	174	357	108	1500	130	56	332	1890	90	50	349
8	45	129	259	105	700	106	55	184	3980	94	38	176
9	46	93	205	114	400	93	55	137	6470	83	33	228
10	42	75	184	136	800	85	71	122	5780	68	32	208
11	41	500	781	148	850	83	121	353	5480	63	38	295
12	41	2500	3080	136	450	169	108	736	5210	59	41	172
13	40	1000	4330	149	300	240	89	854	3300	59	37	258
14	39	750	2860	177	230	161	76	450	2930	51	35	593
15	60	1000	2630	147	200	124	67	190	2730	50	36	329
16	124	700	2890	126	170	108	61	883	1540	50	44	212
17	94	422	2140	139	150	95	58	1190	934	48	41	140
18	114	235	1590	300	140	88	53	2410	827	46	34	107
19	106	271	1040	462	130	82	53	2720	1460	44	34	114
20	89	1010	832	458	120	81	100	3200	1990	44	33	135
21	70	1020	542	436	114	85	128	3100	2020	39	30	139
22	67	416	287	311	106	76	88	2000	1480	40	32	131
23	67	213	236	158	103	70	70	793	807	39	33	97
24	66	3500	212	128	95	66	60	297	402	36	42	87
25	63	16700	191	114	93	66	54	524	256	34	46	72
26	58	17100	180	104	89	65	52	1670	222	31	35	65
27	57	7000	165	101	84	63	49	2060	251	36	33	96
28	125	4500	156	104	80	63	81	1910	226	32	67	83
29	150	3680	150	93	---	62	160	1860	165	32	288	189
30	130	3480	139	85	---	61	86	1660	137	33	88	120
31	160	---	137	84	---	56	---	1910	---	32	69	---
TOTAL	2517	67767	33018	5164	13759	3642	2192	39834	54483	1784	1479	4994
MEAN	81.2	2259	1065	167	491	117	73.1	1285	1816	57.5	47.7	166
MAX	229	17100	4330	462	4140	508	160	3200	6470	118	288	593
MIN	39	75	137	84	80	56	49	99	137	31	30	65
AC-FT	4990	134400	65490	10240	27290	7220	4350	79010	108100	3540	2930	9910

CAL YR 1985 TOTAL 263460 MEAN 722 MAX 17100 MIN 35 AC-FT 522600
WTR YR 1986 TOTAL 230633 MEAN 632 MAX 17100 MIN 30 AC-FT 457500

08068090 WEST FORK SAN JACINTO RIVER ABOVE LAKE HOUSTON NEAR PORTER, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical, biochemical, and pesticide analyses: February 1984 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 27...	1205	7740	164	7.40	21.0	80	86	8.1	91	1.8	900	1900
FEB 04...	0700	1260	108	6.90	17.5	130	240	8.0	84	3.9	K9400	7800
MAY 22...	0800	2330	220	7.10	22.0	150	40	7.3	84	2.0	140	920
AUG 19...	0945	38	423	7.60	29.5	15	69	7.5	--	4.9	150	84

DATE	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
NOV 27...	55	11	19	1.8	8.6	0.5	6.3	44	11	17	0.1	8.8
FEB 04...	25	8	8.0	1.2	11	1	2.0	17	12	15	<0.1	5.2
MAY 22...	74	10	26	2.2	13	0.7	3.5	64	10	19	0.1	11
AUG 19...	79	12	25	4.1	50	3	4.9	67	21	75	0.3	20

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	SOLIDS, VOLATILE, SUSPENDED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DISSOLVED (UG/L AS AS)
NOV 27...	99	158	4	--	0.03	<0.10	0.08	0.72	0.8	0.10	12	--
FEB 04...	65	412	36	0.25	0.05	0.30	0.10	0.7	0.8	0.09	40	--
MAY 22...	120	66	10	--	0.02	<0.10	0.06	0.74	0.8	0.15	12	--
AUG 19...	240	85	13	0.82	0.08	0.90	0.20	1.0	1.2	0.80	5.3	3

DATE	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)
NOV 27...	--	--	--	--	--	--	--	--	--	--	--
FEB 04...	--	--	--	--	--	--	--	--	--	--	--
MAY 22...	--	--	--	--	--	--	--	--	--	--	--
AUG 19...	100	2	<10	3	10	<5	13	<0.1	<1	<1	18

08068520 SPRING CREEK AT SPRING, TX

LOCATION.--Lat 30°05'31", long 95°24'21", Harris-Montgomery County line, Hydrologic Unit 12040102, near right bank at upstream side of bridge on Riley-Fussel Road, 1.1 mi northeast of Spring, 2.7 mi downstream from Missouri Pacific Railroad bridge, 3.6 mi downstream from former station 08068500 at Interstate Highway 45, 6.9 mi upstream from Cypress Creek, and 9.9 mi upstream from mouth.

DRAINAGE AREA.--419 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1939 to current year. Prior to 1975, published as "near Spring".

REVISED RECORDS.--WSP 1732: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 62.17 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 5, 1946, nonrecording gage, and Jan. 6, 1946, to Oct. 1, 1965, water-stage recorder at site 3.6 mi upstream at different datum. Oct. 2, 1965, to Feb. 19, 1976, water-stage recorder at former site at datum 10.93 ft higher; unadjusted for land-surface subsidence.

REMARKS.--Estimated daily discharges: July 11 to Aug. 4. Records good except those for estimated daily discharges, which are fair. No diversion above station.

AVERAGE DISCHARGE.--47 years, 222 ft³/s, 7.19 in/yr, 160,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,700 ft³/s Nov. 25, 1940 (gage height, 33.60 ft) former site and datum, from graph based on gage readings; minimum, 1.1 ft³/s Oct. 23, 24, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1879, 34.3 ft, former site and datum, May 30, 1929, from floodmarks identified by local residents, discharge, 48,300 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 26	1300	*23,300	*31.66	June 11	0900	4,230	15.80
Dec. 14	0500	2,780	13.15				

Minimum discharge, 16 ft³/s Aug. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	71	821	87	54	66	37	89	413	61	23	60
2	36	73	673	86	56	65	36	208	457	55	22	43
3	31	76	588	85	59	81	36	262	473	53	22	46
4	29	52	367	84	217	203	36	273	241	51	21	63
5	23	40	266	81	328	259	36	160	366	49	22	52
6	22	36	210	76	1360	207	36	96	514	64	23	595
7	23	34	179	72	1410	120	37	69	514	69	26	543
8	23	28	155	75	568	94	37	56	802	46	22	187
9	24	24	137	77	297	86	36	48	1710	44	20	147
10	23	24	125	94	333	81	67	44	2050	55	19	200
11	24	52	860	94	280	80	84	48	3950	46	20	195
12	23	432	1960	93	215	101	62	48	2830	44	22	104
13	23	370	2460	95	151	112	55	81	2020	42	19	228
14	23	428	2700	86	120	111	49	69	1280	39	22	568
15	115	266	2060	80	106	93	42	64	590	37	25	496
16	81	155	947	78	97	81	37	78	267	37	23	250
17	63	63	393	113	90	75	39	135	192	34	22	119
18	58	51	276	129	86	57	37	292	297	33	20	83
19	46	45	228	154	82	50	38	316	366	32	19	77
20	60	41	186	141	78	47	202	376	290	31	18	79
21	50	39	153	100	73	45	98	344	168	30	18	114
22	121	38	132	88	68	43	62	132	115	29	21	175
23	58	36	119	80	62	42	49	84	94	28	59	165
24	34	2560	113	73	57	40	43	65	139	27	86	155
25	27	11800	107	70	55	40	41	58	132	27	89	96
26	26	21600	97	65	53	39	35	60	102	26	69	76
27	25	11500	92	60	51	38	32	225	90	26	47	71
28	124	3520	91	55	66	37	45	282	97	25	43	59
29	167	1570	90	53	---	37	39	146	93	24	41	71
30	93	1240	89	52	---	37	40	88	70	23	54	61
31	136	---	89	54	---	37	---	397	---	23	88	---
TOTAL	1677	56264	16763	2630	6492	2504	1523	4693	20722	1210	1045	5178
MEAN	54.1	1875	541	84.8	232	80.8	50.8	151	691	39.0	33.7	173
MAX	167	21600	2700	154	1410	259	202	397	3950	69	89	595
MIN	22	24	89	52	51	37	32	44	70	23	18	43
CFSM	.13	4.47	1.29	.20	.55	.19	.12	.36	1.65	.09	.08	.41
IN.	.15	5.00	1.49	.23	.58	.22	.14	.42	1.84	.11	.09	.46
AC-FT	3330	111600	33250	5220	12880	4970	3020	9310	41100	2400	2070	10270

CAL YR 1985	TOTAL	129902	MEAN	356	MAX	21600	MIN	14	CFSM	.85	IN.	11.53	AC-FT	257700
WTR YR 1986	TOTAL	120701	MEAN	331	MAX	21600	MIN	18	CFSM	.79	IN.	10.72	AC-FT	239400

08068520 SPRING CREEK AT SPRING, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical, biochemical, and pesticide analyses: August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 24- DEC 04	1100	5600	36	--	--	--	--	--	--	--	--	--
NOV 26...	1000	23100	22	5.50	20.0	100	51	6.5	71	2.6	2500	2700
FEB 03...	1210	51	370	7.20	18.0	30	8.0	10.8	114	1.7	K4	60
MAY 20...	0920	366	153	6.60	20.5	200	72	7.4	82	2.9	500	1000
JUN 09...	0030	1760	108	--	--	--	--	--	--	--	--	--
09...	2030	1560	113	--	--	--	--	--	--	--	--	--
AUG 20...	1150	17	590	7.40	28.0	10	15	8.0	--	1.9	100	84

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
NOV 24- DEC 04	11	3	3.1	0.8	3.0	0.4	2.0	8	10	4.2	<0.1	3.5
NOV 26...	8	4	2.1	0.59	1.5	0.2	1.9	4	9.2	2.2	<0.1	3.2
FEB 03...	69	7	21	4.1	47	3	3.0	62	12	67	0.2	16
MAY 20...	37	9	11	2.2	16	1	2.9	28	15	22	0.1	9.8
JUN 09...	27	2	8.1	1.7	10	0.9	2.2	25	13	11	0.1	5.7
09...	33	5	9.6	2.2	9.7	0.8	2.3	28	11	14	0.1	8.6
AUG 20...	78	0	24	4.3	90	5	4.5	118	19	94	0.3	19

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)
NOV 24- DEC 04	31	--	--	--	0.03	<0.10	0.09	0.61	0.7	0.10	--	--
NOV 26...	23	62	4	--	0.02	<0.10	0.06	0.64	0.7	0.08	--	--
FEB 03...	210	20	10	1.19	0.01	1.20	0.05	0.75	0.8	0.89	7.8	1
MAY 20...	96	100	12	0.24	0.06	0.30	0.14	1.1	1.2	0.29	19	--
JUN 09...	67	--	--	0.18	0.02	0.20	0.16	0.84	1.0	0.44	--	--
09...	74	--	--	0.16	0.04	0.20	0.14	0.86	1.0	0.22	--	--
AUG 20...	330	39	4	2.81	0.09	2.90	0.13	0.97	1.1	2.50	5.9	3

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV 24- DEC 04	--	--	--	--	--	--	--	--	--	--	--
NOV 26...	--	--	--	--	--	--	--	--	--	--	--
FEB 03...	99	<1	<10	<1	64	<1	50	<0.1	<1	<1	11
MAY 20...	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
AUG 20...	68	1	<10	2	15	<5	36	<0.1	<1	<1	11

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	AME-TRYNE TOTAL	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	METHO-MYL TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	PROPHAM TOTAL (UG/L)	SEVIN, TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)
NOV 24- DEC 04	--	--	--	--	--	--	--	--	--	--	--
NOV 26...	--	--	--	--	--	--	--	--	--	--	--
FEB 03...	<0.1	<0.1	<0.1	<2.0	<0.1	<0.1	<0.1	<2.0	<2.0	<0.1	<0.1
MAY 20...	--	--	--	--	--	--	--	--	--	--	--
JUN 08...	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--
AUG 20...	--	--	--	--	--	--	--	--	--	--	--

08068720 CYPRESS CREEK AT KATY-HOCKLEY ROAD NEAR HOCKLEY, TX

LOCATION.--Lat 29°57'00", long 95°48'29", Harris County, Hydrologic Unit 12040102, on left bank at bridge on Katy-Hockley Road, 3.3 mi downstream from gage (station 08068700), 5.6 mi southeast of Hockley, and 6.3 mi upstream from station 08068740.

DRAINAGE AREA.--110 mi².

PERIOD OF RECORD.--June 1975 to July 1983, and February 1984 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Concrete weir located 0.9 mi downstream from gage. Datum of gage is 100.00 ft above National Geodetic Vertical Datum of 1929, 1973 adjustment.

REMARKS.--Estimated daily discharges: Nov. 26-30, Dec. 13-15, Feb. 9, 10 and June 18-19. Records fair. Diversions and return flow for irrigation occur upstream from station. Several observations of water temperature were made during the year. Telemeter at station.

AVERAGE DISCHARGE.--9 years (water years 1975-82, 1985-86), 62.9 ft³/s, 45,570 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,370 ft³/s Jan. 20, 1979 (gage height, 61.05 ft), but may have been exceeded during period of no record July 29 to Jan. 31, 1984; no flow for many days each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood in June 1960 reached a stage of 62.0 ft, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,320 ft³/s June 11 at 1800 hours (gage height, 59.78 ft); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.8	15	463	4.1	3.4	1.8	.72	1.7	182	3.9	2.1	6.0
2	3.4	13	278	3.4	3.0	1.7	.57	30	121	3.1	1.9	1.7
3	3.5	13	152	2.5	3.1	1.8	1.6	24	55	2.4	1.4	2.5
4	3.5	13	85	2.4	6.8	2.6	1.3	.46	29	1.8	2.8	1.2
5	3.4	11	58	2.5	96	3.1	.50	.00	57	1.6	12	1.7
6	2.5	7.5	43	2.1	477	3.1	.36	.00	185	1.0	13	72
7	2.1	9.3	31	2.1	308	2.7	.27	.00	274	.80	6.7	118
8	1.6	5.6	22	2.1	119	2.1	.22	.00	575	.85	3.6	38
9	3.3	2.8	17	2.1	79	1.9	.18	.00	872	1.2	2.1	3.5
10	4.7	2.0	15	2.1	98	1.7	.08	.00	1080	.37	1.4	.70
11	3.2	6.5	82	3.6	72	1.8	3.6	.00	1290	.00	.93	.00
12	2.6	97	385	3.8	35	2.7	1.0	.00	1300	.00	.82	.00
13	2.3	190	770	3.7	22	1.7	1.4	.00	1160	.00	.78	2.0
14	5.0	83	710	3.1	16	2.1	.92	.00	952	.00	.64	7.3
15	60	34	523	2.0	12	1.5	.35	.16	686	.00	.57	3.6
16	31	19	254	1.9	9.5	.91	.17	10	317	.00	.62	2.3
17	24	12	106	4.6	9.3	2.1	.10	3.1	126	.00	.55	1.7
18	20	8.4	67	11	7.7	3.1	.08	16	81	.01	.43	2.5
19	13	6.3	43	11	7.4	2.3	.07	40	42	2.0	.67	1.8
20	7.3	4.5	31	6.6	7.6	1.6	.67	3.0	22	4.1	.48	1.9
21	5.5	3.6	23	4.8	6.4	1.0	.51	.00	11	1.3	.27	3.5
22	9.3	3.0	17	4.0	3.9	.45	.32	.00	18	2.5	.61	2.7
23	20	2.4	14	3.5	3.4	.32	.59	.00	18	2.7	6.5	1.9
24	14	272	12	2.9	2.7	.25	.69	.00	9.1	4.6	5.3	2.0
25	11	935	8.6	2.9	2.2	.17	.33	17	6.0	1.9	.00	1.7
26	9.4	1180	6.8	2.9	2.2	.12	.20	126	10	.69	.00	1.3
27	6.9	1250	6.1	2.9	2.5	.35	.14	92	9.9	.79	.00	1.2
28	4.9	1080	5.4	2.9	2.1	.64	.94	43	20	.64	.00	1.3
29	8.1	890	4.5	3.0	---	.77	.48	14	15	.82	.06	1.1
30	16	700	4.1	3.7	---	.75	.22	16	8.3	3.5	4.8	.86
31	18	---	4.1	4.2	---	.76	---	135	---	3.3	4.2	---
TOTAL	329.3	6878.9	4240.6	114.4	1417.2	47.89	19.36	571.42	9541.3	45.87	75.21	286.96
MEAN	10.6	229	137	3.69	50.6	1.54	.65	18.4	318	1.48	2.43	9.57
MAX	60	1250	770	11	477	3.1	3.6	135	1300	4.6	13	118
MIN	1.6	2.0	4.1	1.9	2.1	.12	.07	.00	6.0	.00	.00	.00
AC-FT	653	13640	8410	227	2810	95	38	1130	18930	91	149	569

CAL YR 1985 TOTAL 22442.06 MEAN 61.5 MAX 1250 MIN .00 AC-FT 44510
WTR YR 1986 TOTAL 23568.41 MEAN 64.6 MAX 1300 MIN .00 AC-FT 46750

08068740 CYPRESS CREEK AT HOUSE AND HAHL ROAD NEAR CYPRESS, TX

LOCATION.--Lat 29°57'32", long 95°43'03", Harris County, Hydrologic Unit 12040102, on right bank at bridge on House and Hahl Road, 1.4 mi southwest of Cypress, and 6.3 mi downstream from gage (station 08068720).

DRAINAGE AREA.--131 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1975 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum gage is 100.00 ft above National Geodetic Vertical Datum of 1929, 1973 adjustment.

REMARKS.--Estimated daily discharges: Jan. 28-30, Feb. 28 to Mar. 5, Mar. 9 to Apr. 10, Apr. 14 to May 1, May 4-15, 21-25, July 11-19, 29-30, Aug. 2-4, 14-23, and Sept. 27-30. Water-discharge records fair except those for estimated daily discharges, which are poor. Stage discharge relationship affected by seasonal vegetal growth during most years. Considerable diversions and return flow from irrigation occur upstream from station, especially during period April through October.

AVERAGE DISCHARGE.--11 years, 82.3 ft³/s (59,630 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,590 ft³/s Sept. 22, 1979 (gage height, 46.33 ft); no flow for many days (result of pumping for irrigation).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since about 1908, about 49 ft in 1937, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,260 ft³/s Nov. 28 at 0100 hours and June 12 at 2400 hours to June 13 at 0800 hours (gage height, 44.40 ft); no flow on many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	17	623	5.7	1.8	1.1	.80	1.0	239	6.5	4.1	9.4
2	8.5	19	414	5.0	1.5	1.0	.80	18	169	4.8	3.0	3.7
3	3.3	18	207	4.7	1.5	.90	1.7	35	74	3.7	2.0	3.1
4	2.7	17	101	4.5	5.3	1.0	1.4	2.0	45	4.0	3.0	3.0
5	2.8	11	64	4.3	127	1.9	.80	.50	72	2.8	13	2.4
6	2.2	7.6	43	3.9	726	2.8	.60	.20	196	2.3	15	62
7	1.6	9.5	39	3.4	468	2.4	.50	.00	368	2.4	11	207
8	1.1	4.5	26	3.2	158	2.1	.40	.00	635	7.7	8.0	85
9	.87	5.3	19	3.3	100	1.7	.40	.00	936	5.8	6.4	19
10	3.0	3.1	16	3.6	101	1.5	1.0	.00	991	4.3	5.2	7.3
11	1.9	20	179	5.0	66	1.5	2.4	.00	1130	1.0	5.3	2.7
12	.91	143	576	5.7	38	1.9	2.3	.00	1240	.40	7.4	2.0
13	.80	257	1010	4.8	25	1.7	1.2	.00	1250	.20	4.6	1.9
14	2.5	125	961	4.4	18	1.7	1.0	.00	1110	.00	3.0	9.5
15	112	44	696	3.1	15	1.4	.80	.20	900	.00	2.0	5.5
16	58	25	419	2.5	12	1.2	.60	6.5	515	1.0	1.2	4.0
17	34	24	157	5.2	12	1.5	.50	5.0	170	3.7	.80	2.4
18	32	15	97	11	8.6	1.7	.40	9.2	89	1.0	.60	1.9
19	23	8.0	59	9.5	6.5	1.6	.30	41	63	.50	.50	2.4
20	14	5.3	39	6.2	5.7	1.3	.80	8.2	25	6.7	.40	2.0
21	33	4.4	29	4.4	5.1	1.0	.70	.75	14	4.0	.30	2.7
22	61	13	23	3.4	4.3	.80	.60	.20	15	12	.30	2.6
23	44	12	19	2.8	3.6	.60	.80	.00	29	12	39	3.8
24	27	226	16	2.3	2.6	.50	.80	.00	16	15	38	8.2
25	18	987	13	1.9	2.1	.40	.50	1.0	10	13	10	3.1
26	13	1130	11	1.8	1.8	.30	.30	136	15	12	11	2.8
27	9.1	1230	9.2	1.5	1.5	.60	.30	121	15	11	5.1	1.5
28	8.3	1240	8.4	1.2	1.3	.80	1.0	49	20	8.3	3.3	1.6
29	17	1110	7.7	1.0	---	.90	.80	16	17	4.0	3.2	1.4
30	22	876	6.9	1.4	---	.90	.60	8.4	11	4.5	6.1	1.2
31	25	---	6.4	2.5	---	.80	---	133	---	5.4	3.7	---
TOTAL	593.58	7606.7	5894.6	123.2	1919.2	39.50	25.10	592.15	10379	160.00	216.50	465.1
MEAN	19.1	254	190	3.97	68.5	1.27	.84	19.1	346	5.16	6.98	15.5
MAX	112	1240	1010	11	726	2.8	2.4	136	1250	15	39	207
MIN	.80	3.1	6.4	1.0	1.3	.30	.30	.00	10	.00	.30	1.2
AC-FT	1180	15090	11690	244	3810	78	50	1170	20590	317	429	923

CAL YR 1985 TOTAL 27312.30 MEAN 74.8 MAX 1240 MIN .00 AC-FT 54170
WTR YR 1986 TOTAL 28014.63 MEAN 76.8 MAX 1250 MIN .00 AC-FT 55570

08068740 CYPRESS CREEK AT HOUSE AND HAHL ROAD NEAR CYPRESS, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical, biochemical, and pesticide analyses: January 1977 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	HARDNESS (MG/L AS CACO3)
NOV 07...	1025	12	211	7.20	16.0	120	42	10.0	101	2.4	47
FEB 05...	1214	7.0	351	7.00	17.0	100	59	9.3	97	3.5	69
MAY 29...	1105	13	115	7.20	24.0	150	85	8.4	99	2.4	30
AUG 07...	0805	10	588	7.60	26.5	--	13	5.8	72	3.3	80

DATE	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
NOV 07...	1	14	3.0	20	1	9.6	46	19	28	0.2	17
FEB 05...	25	21	4.1	40	2	5.4	44	32	63	0.2	3.6
MAY 29...	5	8.7	2.0	9.0	0.7	4.3	25	12	12	0.2	7.3
AUG 07...	3	26	3.7	75	4	7.2	77	10	120	0.2	11

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	SOLIDS, VOLATILE, SUSPENDED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV 07...	140	53	5	0.14	0.06	0.20	0.08	1.3	1.4	0.29	14
FEB 05...	200	37	8	0.24	0.06	0.30	0.47	1.2	1.7	0.22	15
MAY 29...	71	51	15	0.14	0.06	0.20	0.11	1.1	1.2	0.32	17
AUG 07...	300	--	--	0.32	0.18	0.50	3.20	0.9	4.1	0.10	11

DATE	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)
NOV 07...	2	76	1	<10	5	340	1	19	<0.1	11	<1
FEB 05...	1	120	<1	<10	3	390	2	42	<0.1	--	<1
MAY 29...	2	70	1	<10	4	250	<1	18	<0.1	--	<1
AUG 07...	1	140	4	<10	3	72	<5	22	<0.1	--	<1

DATE	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)	PCB, TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)
NOV 07...	<1	46	<0.1	<0.1	<0.01	<0.1	<0.01	<0.01	<0.01	0.01	<0.01
FEB 05...	<1	13	<0.1	<0.1	<0.01	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01
MAY 29...	<1	21	<0.1	<0.1	<0.01	<0.1	<0.01	<0.01	<0.01	0.01	<0.01
AUG 07...	<1	94	--	--	--	--	--	--	--	--	--

08068740 CYPRESS CREEK AT HOUSE AND HAHL ROAD NEAR CYPRESS, TX--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)
NOV 07...	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
FEB 06...	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MAY 29...	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
AUG 07...	--	--	--	--	--	--	--	--	--	--

DATE	MIREX, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	PER-THANE TOTAL (UG/L)	PHORATE OTAL (UG/L)	SILVEX, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOTAL TRI-THION (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
NOV 07...	<0.01	<0.01	<0.1	--	<0.01	<1	<0.01	0.01	<0.01	<0.01
FEB 06...	<0.01	<0.01	<0.1	--	<0.01	<1	<0.01	0.03	<0.01	<0.01
MAY 29...	<0.01	<0.01	<0.1	<0.01	<0.01	<1	<0.01	0.22	<0.01	<0.01
AUG 07...	--	--	--	--	<0.01	--	--	<0.01	<0.01	<0.01

08068780 LITTLE CYPRESS CREEK NEAR CYPRESS, TX

LOCATION.--Lat 30°00'57", long 95°41'50", Harris County, Hydrologic Unit 12040102, on right bank at downstream side of bridge on Cypress-Rose Hill Road, 3.2 mi north of Cypress, and 6.9 mi upstream from mouth.

DRAINAGE AREA.--41.0 mi².

PERIOD OF RECORD.--May 1982 to current year.

GAGE.--Water-stage and rainfall recorders and crest-stage gage. Datum of gage is 80.00 ft above National Geodetic Vertical Datum 1929, 1973 adjustment.

REMARKS.--Estimated daily discharges: Nov. 26, Feb. 5, 6, July 19-21, Aug. 5-13, 17-22, 24-31, and Sept. 1-9. Records good except for Aug. 24 to Sept. 9 and discharges below 0.50 ft³/s, which are poor. No known regulation or diversions. Several observations of water temperature were made during the year. Telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,400 ft³/s May 14, 1982, time unknown (gage height, about 79.5 ft); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 25	0100	*2,220	*79.30	June 9	1200	983	77.07
Feb. 6	0400	713	76.00				

Minimum discharge, 0.04 ft³/s Apr. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	4.8	25	.45	.08	.32	.15	3.2	43	.65	.67	1.5
2	1.3	2.8	27	.49	.08	.30	.15	6.9	94	.60	1.0	1.0
3	.84	7.7	13	.68	.08	.31	.15	3.1	43	.52	.77	.70
4	.64	5.3	7.5	.67	.94	.40	.15	1.2	39	.48	.59	.60
5	.40	2.6	5.0	.61	114	.64	.10	.46	33	.50	.45	.50
6	.49	1.2	3.0	.68	461	.48	.20	.24	22	.41	.35	10
7	.64	.72	1.9	.79	75	.34	.04	.14	23	.52	.30	140
8	3.7	.48	1.2	.92	32	.32	.08	.11	154	3.5	.25	80
9	5.8	.35	1.0	.90	32	.33	.08	.09	794	2.0	.22	30
10	2.4	.29	1.1	1.1	38	.25	.32	.13	472	1.1	.20	14
11	1.3	8.2	80	2.1	20	.21	2.3	.75	239	.86	.18	4.8
12	.80	95	214	1.0	11	.42	1.2	.80	145	.87	.16	1.7
13	.58	59	362	.77	7.3	1.1	.49	.50	46	.94	.50	1.0
14	.66	15	134	.45	5.6	.48	.29	.29	22	.98	1.0	1.5
15	20	5.3	42	.18	4.5	.30	.14	.43	12	1.0	.87	1.7
16	22	2.6	26	.14	2.6	.21	.10	3.0	7.4	.85	.77	.98
17	6.7	1.6	17	2.3	1.9	.18	.06	1.7	8.4	.57	.56	.84
18	3.5	1.2	9.9	3.9	1.5	.20	.06	6.9	10	.35	.40	.52
19	2.1	.92	6.8	1.1	1.4	.23	.10	6.6	7.0	.20	.30	.81
20	1.2	.96	4.5	.53	1.2	.22	.25	2.1	7.1	.15	.25	1.1
21	1.1	.68	3.1	.36	.81	.19	.41	.71	4.2	.10	.20	1.4
22	4.3	.48	2.0	.25	.68	.20	.28	.32	4.8	1.9	.15	1.7
23	6.6	.34	1.4	.19	.56	.15	.15	.13	7.7	4.1	16	1.0
24	3.6	622	1.4	.15	.48	.30	.08	.07	3.7	5.2	40	22
25	4.3	1960	1.3	.12	.46	.15	.08	.09	2.1	2.3	10	7.6
26	2.7	837	1.1	.09	.47	.20	.06	.31	1.4	3.8	4.0	3.8
27	1.4	178	.82	.09	.37	.20	.06	2.7	2.0	3.2	3.0	1.5
28	2.6	156	.68	.08	.29	.15	.19	1.9	1.9	1.2	1.0	.92
29	14	52	.68	.08	---	.20	.45	1.1	1.3	.67	.70	.74
30	12	25	.68	.08	---	.25	.30	.77	.81	.43	.50	.63
31	6.8	---	.62	.08	---	.15	---	21	---	.29	1.0	---
TOTAL	137.25	4047.52	995.68	21.33	814.30	9.38	8.47	67.74	2250.81	40.24	86.34	334.54
MEAN	4.43	135	32.1	.69	29.1	.30	.28	2.19	75.0	1.30	2.79	11.2
MAX	22	1960	362	3.9	461	1.1	2.3	21	794	5.2	40	140
MIN	.40	.29	.62	.08	.08	.15	.04	.07	.81	.10	.15	.50
CFSM	.11	3.29	.78	.02	.71	.01	.01	.05	1.83	.03	.07	.27
IN.	.12	3.67	.90	.02	.74	.01	.01	.06	2.04	.04	.08	.30
AC-FT	272	8030	1970	42	1620	19	17	134	4460	80	171	664
(††)	4.30	7.70	3.20	.60	3.80	.50	1.60	5.50	5.70	.70	4.60	2.40

CAL YR 1985 TOTAL 9712.05 MEAN 26.6 MAX 1960 MIN .00 CFSM .65 IN. 8.81 AC-FT 19260 (††) 39.90
WTR YR 1986 TOTAL 8813.60 MEAN 24.1 MAX 1960 MIN .04 CFSM .59 IN. 8.00 AC-FT 17480 (††) 40.60

(††) Rainfall, in inches.

08068800 CYPRESS CREEK AT GRANT ROAD NEAR CYPRESS, TX

LOCATION.--Lat 29°58'24", long 95°35'54", Harris County, Hydrologic Unit 12040102, on right bank at downstream side of bridge on Grant Road and 6.0 mi east of Cypress.

DRAINAGE AREA.--214 mi².

PERIOD OF RECORD.--May 1982 (discharge measurements only), October 1982 to current year.

GAGE.--Water-stage recorder. Datum of gage is 80.00 ft above National Geodetic Vertical Datum of 1929, 1973 adjustment.

REMARKS.--Estimated daily discharges: Dec. 16-30. Records fair. Base flow sustained by effluent from urbanized areas and drainage from irrigated farming areas in the basin. Telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,550 ft³/s May 14, 1982 (gage height, 43.48 ft); minimum daily (estimated), 0.29 ft³/s Sept. 15, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,440 ft³/s Nov. 26 at 0600 hours (gage height, 42.86 ft); minimum daily, 0.94 ft³/s Aug. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	30	812	8.3	4.1	6.6	1.6	58	359	11	3.4	11
2	12	32	605	7.4	3.6	6.4	1.6	20	365	7.8	2.2	8.6
3	6.0	29	358	6.7	3.4	6.6	1.5	52	269	5.8	1.8	4.7
4	3.9	26	158	6.1	12	9.0	1.5	1.3	130	4.9	1.7	11
5	3.7	19	94	5.9	65	5.7	1.4	4.3	281	4.9	9.9	5.9
6	3.2	13	64	5.6	1160	5.4	1.3	3.3	194	3.9	18	10
7	3.0	9.8	59	5.1	867	5.3	1.1	2.5	372	3.4	13	312
8	2.6	8.7	44	5.1	401	5.0	1.1	2.2	700	7.7	9.4	286
9	5.0	6.0	31	6.6	186	4.3	1.0	2.2	1480	12	5.9	124
10	5.0	5.8	23	9.3	196	4.1	3.7	2.8	1760	8.1	5.0	43
11	5.5	79	342	7.6	136	3.8	3.7	3.3	1470	5.6	4.0	13
12	4.1	247	949	8.9	77	5.8	3.8	2.3	1420	3.3	5.9	7.6
13	3.9	337	1450	7.6	49	4.0	2.8	2.1	1330	2.5	6.0	4.6
14	21	239	1130	7.8	35	3.6	2.2	1.9	1190	2.4	3.0	12
15	187	86	808	6.9	26	3.0	1.9	3.9	1040	2.7	2.0	9.9
16	160	43	550	5.9	22	3.0	1.8	2.4	847	2.7	1.5	8.7
17	58	35	300	11	19	2.7	1.6	14	419	1.9	1.5	5.5
18	41	25	150	18	17	2.5	1.4	14	152	3.2	1.0	9.2
19	258	11	77	19	13	2.2	1.4	37	96	1.9	.96	6.6
20	62	8.1	50	14	11	2.1	2.7	30	112	2.4	.94	7.8
21	33	6.7	40	10	10	2.1	1.9	5.3	58	5.2	.95	6.2
22	170	9.5	30	8.5	10	2.1	1.6	2.8	33	4.8	1.1	10
23	72	10	25	6.7	9.4	2.0	1.5	2.1	50	12	32	6.0
24	44	511	20	5.7	8.8	1.9	1.5	1.7	33	15	135	29
25	25	2400	17	5.2	8.0	1.9	1.0	1.7	21	17	30	23
26	21	3200	14	4.5	7.5	1.8	1.0	67	21	13	17	12
27	14	1840	12	4.1	7.1	1.7	1.0	225	28	13	17	7.6
28	30	1410	11	3.8	6.8	1.7	2.4	93	19	10	7.8	15
29	35	1260	10	3.5	---	1.6	1.8	33	25	7.9	5.2	8.2
30	42	1040	9.0	3.3	---	1.6	1.2	117	16	3.7	3.8	3.2
31	49	---	8.7	3.5	---	1.6	---	399	---	3.2	8.8	---
TOTAL	1403.9	12978.6	8250.7	231.6	3370.7	111.1	54.0	1207.1	14290	202.9	355.75	1021.3
MEAN	45.3	433	266	7.47	120	3.58	1.80	38.9	476	6.55	11.5	34.0
MAX	258	3200	1450	19	1160	9.0	3.8	399	1760	17	135	312
MIN	2.6	5.8	8.7	3.3	3.4	1.6	1.0	1.3	16	1.9	.94	3.2
AC-FT	2780	25740	16370	459	6690	220	107	2390	28340	402	706	2030
(††)	8.10	7.80	3.30	.60	1.70	1.30	1.50	7.90	7.90	1.00	2.10	3.40

CAL YR 1985 TOTAL 43019.0 MEAN 118 MAX 3200 MIN 1.0 AC-FT 85330 (‡‡) 52.00
WTR YR 1986 TOTAL 43477.65 MEAN 119 MAX 3200 MIN .94 AC-FT 86240 (††) 46.60

(††) Rainfall, in inches.

08068900 CYPRESS CREEK AT STUEBNER-AIRLINE ROAD NEAR WESTFIELD, TX

LOCATION.--Lat 30°00'23", long 95°30'42", Harris County, Hydrologic Unit 12040102, on right bank at downstream side of bridge on Stuebner-Airline Road, 1.3 mi upstream from Spring Gully, and 6.5 mi west of Westfield.

DRAINAGE AREA.--248 mi².

PERIOD OF RECORD.--June 1982 to current year.

GAGE.--Water-stage and rainfall recorders. Datum of gage is 70.00 ft above National Geodetic Vertical Datum, 1973 adjustment.

REMARKS.--Records good. Extreme low-water gage heights are not collected. Low flow is sustained by sewage effluent from urbanized areas and drainage from irrigated farm land. TelemetER at station. Gage temporarily removed for bridge construction June 13, 1986.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 37.88 ft Oct. 25, 1984; minimum not determined.

EXTREMES FOR PERIOD OCT. 1, 1985, TO JUNE 13, 1986.--Maximum gage height, 33.53 ft Nov. 24 at 2030 hours; minimum not determined.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

Oct. 4..........	14	Apr. 4.........	9.5
Jan. 10..........	38	June 10..........	1,810

MAXIMUM DAILY GAGE HEIGHT (FEET ABOVE DATUM), OCTOBER 1985 TO JUNE 1986
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	16.90	23.95	15.47	---	15.19	---	19.32	19.83			
2	---	17.44	---	15.47	---	15.22	---	18.47	19.15			
3	---	17.32	---	15.46	17.81	17.47	---	16.47	19.13			
4	16.08	16.58	18.81	15.42	18.74	17.16	15.11	16.47	20.29			
5	---	16.45	17.51	15.41	20.99	15.53	15.11	15.55	19.31			
6	---	16.29	17.00	15.41	25.70	15.38	15.13	15.27	18.62			
7	---	16.10	16.64	15.38	25.70	15.33	15.13	15.19	20.54			
8	16.00	16.09	16.54	15.58	21.90	15.32	15.19	15.16	24.17			
9	16.04	---	16.32	15.80	18.95	15.31	15.08	15.15	27.05			
10	16.07	---	16.11	16.05	18.29	15.24	17.21	15.92	27.56			
11	16.06	21.51	18.07	15.63	18.07	15.31	---	15.77	26.98			
12	16.47	21.36	16.50	15.51	17.36	18.31	---	15.26	26.04			
13	16.66	19.69	16.87	15.52	16.67	15.71	---	15.15	25.61			
14	20.14	19.64	25.22	---	16.36	15.34	---	15.16	---			
15	21.45	19.67	---	---	16.00	15.30	---	16.05	---			
16	---	18.71	---	---	15.88	15.26	---	15.50	---			
17	---	16.74	---	---	15.76	15.23	---	18.83	---			
18	---	16.56	18.47	---	15.69	15.20	---	17.66	---			
19	31.89	16.38	---	---	15.60	15.19	17.65	16.17	---			
20	27.81	16.10	---	---	15.45	---	17.94	16.35	---			
21	22.60	---	---	15.59	15.38	---	15.45	15.87	---			
22	22.03	16.10	16.30	15.51	15.37	---	15.19	15.44	---			
23	18.11	16.13	16.12	15.48	15.32	---	15.16	15.24	---			
24	17.15	33.53	---	15.50	15.31	---	15.16	15.16	---			
25	16.75	32.68	---	15.49	15.28	---	15.13	18.31	---			
26	16.50	31.65	---	---	15.22	---	15.10	16.71	---			
27	16.42	31.27	---	---	15.38	---	15.14	18.86	---			
28	19.64	27.40	---	---	15.39	---	15.99	18.21	---			
29	19.14	---	---	---	---	---	15.44	16.65	---			
30	17.99	25.08	---	---	---	---	15.20	24.25	---			
31	17.98	---	15.50	---	---	---	---	24.52	---			

08069000 CYPRESS CREEK NEAR WESTFIELD, TX

LOCATION.--Lat 30°02'08", long 95°25'43", Harris County, Hydrologic Unit 12040102, on left bank at downstream side of downstream bridge on Interstate Highway 45 and U.S. Highway 75, 0.9 mi upstream from Senger Gully, 1.8 mi northwest of Westfield, 2.0 mi upstream from Missouri Pacific Railroad Co. bridge, and 11.0 mi upstream from mouth.

DRAINAGE AREA.--285 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1944 to current year.

REVISED RECORDS.--WSP 1732: Drainage area.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 63.89 ft above National Geodetic Vertical Datum of 1929; unadjusted for land-surface subsidence. Prior to Mar. 17, 1951, water-stage recorder at upstream side of bridge at datum 12.00 ft higher.

REMARKS.--Estimated daily discharges: Dec. 19, 26, Feb. 3-4, Mar. 25, Apr. 10, 28, and May 5-6. Records good except those for Feb. 3-4, Apr. 10, and May 5-6, which are poor. No large diversions upstream from station. Low flow is maintained by sewage effluent. Channel below gage was rectified in 1950-51, 1975, and 1981.

AVERAGE DISCHARGE.--42 years, 162 ft^3/s (117,400 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,100 ft^3/s Oct. 8, 1949 (gage height, 33.44 ft) present datum, from rating curve extended above 11,000 ft^3/s; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1875, 34 ft, present datum, in May 1929, discharge, 26,000 ft^3/s, from information by local resident. Flood in November 1940 reached a stage of about 32 ft, present datum, discharge 15,000 ft^3/s, from information by State Department of Highways and Public Transportation.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 24	2100	*4,150	*22.20	No other peak greater than base discharge.			

Minimum daily discharge, 16 ft^3/s Mar. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	76	964	37	24	21	19	226	352	37	24	63
2	45	173	664	36	26	23	18	167	277	32	24	36
3	35	95	427	33	50	73	18	65	264	27	23	74
4	26	59	232	32	300	107	19	64	222	25	35	40
5	22	50	140	31	155	34	19	33	302	24	65	65
6	23	41	105	34	1020	27	19	25	220	29	94	657
7	22	33	85	32	1150	24	20	22	271	27	46	323
8	23	33	79	38	597	24	19	21	861	65	32	325
9	21	28	65	55	320	25	19	21	1340	132	30	208
10	25	26	56	80	248	25	80	42	1690	40	28	106
11	24	238	1040	41	193	23	51	41	1650	30	36	57
12	25	428	1580	36	126	191	27	26	1430	27	35	41
13	49	298	1710	38	86	38	27	19	1370	23	29	191
14	170	350	1390	31	68	29	24	21	1290	24	27	326
15	475	304	969	30	57	24	21	51	1180	24	31	107
16	229	163	709	28	51	23	20	37	1010	24	28	42
17	129	67	440	38	47	23	19	116	840	26	25	35
18	92	59	224	44	42	22	19	144	266	25	25	34
19	750	47	147	44	38	21	39	51	381	26	24	74
20	887	34	109	43	33	19	216	66	211	23	24	219
21	299	32	88	36	31	19	35	42	253	27	25	301
22	466	31	76	32	29	20	23	26	69	27	38	98
23	137	65	68	29	28	22	20	24	85	28	223	106
24	88	1240	59	31	29	20	19	22	76	34	140	33
25	84	2860	54	32	27	19	18	110	52	42	99	59
26	71	2510	53	26	25	18	19	54	52	38	62	73
27	45	2350	46	26	26	19	19	157	87	36	48	37
28	376	1560	42	26	22	16	75	152	55	38	60	114
29	204	1330	40	25	---	19	33	74	44	33	34	122
30	178	1130	39	27	---	20	23	191	44	30	25	35
31	158	---	39	23	---	20	---	898	---	27	100	---
TOTAL	5268	15710	11739	1094	4048	1008	997	3008	16244	1050	1539	4001
MEAN	170	524	379	35.3	173	32.5	33.2	97.0	541	33.9	49.6	133
MAX	887	2860	1710	80	1150	191	216	898	1690	132	223	657
MIN	21	26	39	23	22	16	18	19	44	23	23	33
AC-FT	10450	31160	23280	2170	9620	2000	1980	5970	32220	2080	3050	7940

CAL YR 1985 TOTAL 72488 MEAN 199 MAX 2860 MIN 19 AC-FT 143800
WTR YR 1986 TOTAL 66506 MEAN 182 MAX 2860 MIN 16 AC-FT 131900

08069000 CYPRESS CREEK NEAR WESTFIELD, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: March 1959 to April 1964, October 1977 to June 1978, August 1983 to current year. Chemical, biochemical, and pesticide analyses: August 1983 to current year. Sediment analyses: October 1976 to September 1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 24-DEC 04	1100	1550	72	--	--	--	--	--	--	--	--	--
NOV 25...	0945	2900	59	7.60	20.0	100	150	7.6	83	3.0	6900	9200
FEB 03...	1115	26	800	7.50	20.0	30	8.6	9.4	104	8.3	K16	K4
MAY 20...	0810	70	467	7.60	22.0	100	70	7.2	82	3.6	820	340
JUN 10...	0730	1670	72	--	--	--	--	--	--	--	--	--
AUG 20...	1235	23	814	8.20	29.0	20	14	7.5	--	2.9	2000	140

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
NOV 24-DEC 04	23	5	7.2	1.3	6.0	0.6	3.5	18	11	7.6	0.1	5.9
NOV 25...	20	5	6.5	0.87	3.4	0.3	2.4	15	9.4	4.0	0.1	3.8
FEB 03...	110	0	34	5.9	120	5	8.4	185	27	100	0.5	19
MAY 20...	73	0	23	3.7	62	3	5.8	103	17	60	0.3	13
JUN 10...	20	0	5.9	1.3	6.6	0.7	2.5	21	9.7	6.8	<0.1	5.9
AUG 20...	98	0	31	5.1	130	6	9.1	200	28	100	0.6	21

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)
NOV 24-DEC 04	53	--	--	0.16	0.04	0.20	0.14	0.96	1.1	0.32	--	--
NOV 25...	39	376	28	0.04	0.06	0.10	0.13	0.97	1.1	0.30	12	--
FEB 03...	430	15	7	7.57	0.43	8.00	2.10	1.7	3.8	6.20	7.5	4
MAY 20...	250	70	12	3.06	0.14	3.20	0.28	1.1	1.4	3.10	9.8	--
JUN 10...	51	--	--	0.08	0.02	0.10	0.20	2.4	2.6	0.23	--	--
AUG 20...	440	20	6	7.21	0.19	7.40	0.20	1.5	1.7	5.70	8.6	5

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV 24-DEC 04	--	--	--	--	--	--	--	--	--	--	--
NOV 25...	--	--	--	--	--	--	--	--	--	--	--
FEB 03...	140	<1	<10	2	12	<1	32	<0.1	<1	<1	18
MAY 20...	--	--	--	--	--	--	--	--	--	--	--
JUN 10...	--	--	--	--	--	--	--	--	--	--	--
AUG 20...	100	<1	<10	2	17	<5	2	<0.1	<1	<1	20

08069000 CYPRESS CREEK NEAR WESTFIELD, TX--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	AME-TRYNE TOTAL	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	METHO-MYL TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	PROPHAM TOTAL (UG/L)	SEVIN, TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)
NOV 24-DEC 04	--	--	--	--	--	--	--	--	--	--	--
NOV 25...	--	--	--	--	--	--	--	--	--	--	--
FEB 03...	<0.1	<0.1	<0.1	<2.0	<0.1	<0.1	<0.1	<2.0	<2.0	0.1	<0.1
MAY 20...	--	--	--	--	--	--	--	--	--	--	--
JUN 10...	--	--	--	--	--	--	--	--	--	--	--
AUG 20...	--	--	--	--	--	--	--	--	--	--	--

08069500 WEST FORK SAN JACINTO RIVER NEAR HUMBLE, TX

LOCATION.--Lat 30°01'38", long 95°15'27", Harris County, Hydrologic Unit 12040101, near left bank at service road bridge on U.S. Highway 59, 970 ft upstream from Texas and New Orleans Railroad Co. bridge, 0.5 mi downstream from Spring Creek, and 2.5 mi north of Humble.

DRAINAGE AREA.--1,741 mi².

PERIOD OF RECORD.--October 1928 to September 1954, October 1954 to current year (gage heights only). Annual maximum and minimum gage heights only for October 1954 to September 1966 (published with station 08072000 Lake Houston near Sheldon). Published as San Jacinto River near Humble prior to 1938.

REVISED RECORDS.--WSP 1732: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 30.53 ft above National Geodetic Vertical Datum of 1929. Prior to July 17, 1933, nonrecording gage at site 1,800 ft downstream at same datum. July 17, 1933, to Mar. 5, 1939, nonrecording gage at present site and datum.

REMARKS.--Records good. Station discontinued as a streamflow station Sept. 30, 1954, due to backwater from Lake Houston. No large diversion above station. Only maximum daily gage heights above 15.5 ft were published prior to Apr. 23. Telemeter at station.

AVERAGE DISCHARGE.--26 years (water years 1929-54), 1,097 ft³/s, 794,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--1928-54: Maximum discharge, 187,000 ft³/s May 31, 1929, Nov. 25, 26, 1940; maximum gage height, 32.7 ft May 31, 1929, Nov. 26, 1940, present site and datum, both affected by backwater from East Fork San Jacinto River; minimum discharge, 11 ft³/s Aug. 31, Sept. 1, 2, 1951.

1954-86: Maximum gage height since first appreciable storage at Lake Houston, 25.15 ft Apr. 19, 1979; minimum since first appreciable storage at Lake Houston, 5.5 ft Dec. 12, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1865, occurred in September 1900, May 31, 1929, and Nov. 25, 26, 1940, and all reached about the same stage, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 22.67 ft Nov. 26 at 2000 hours; minimum recorded, 11.67 ft Aug. 23.

MAXIMUM DAILY GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	---				---	12.90	14.47	13.45	12.29	12.02
2		---	---				---	13.37	13.89	13.38	12.24	12.03
3		---	---				---	13.79	13.64	13.25	12.22	12.10
4		---	---				---	13.95	13.57	13.15	12.17	12.10
5		---	---				---	13.95	13.52	13.14	12.13	12.12
6		---	---				---	13.83	13.59	13.10	12.12	13.71
7		---	---				---	13.38	14.23	13.07	12.16	13.76
8		---	---				---	13.28	17.40	13.07	12.11	13.27
9		---	---				---	13.20	18.00	13.05	12.07	13.29
10		---	---				---	13.16	17.93	13.02	12.09	13.39
11		---	16.16				---	13.10	18.86	13.07	12.03	13.42
12		---	17.33				---	13.17	18.89	12.99	11.98	13.40
13		---	17.63				---	13.22	17.34	13.00	11.98	13.57
14		---	17.15				---	13.25	16.83	12.96	11.96	13.79
15		---	16.52				---	13.20	16.83	12.89	11.94	13.64
16		---	15.95				---	13.29	15.17	12.91	11.92	13.60
17		---	---				---	13.58	14.38	12.86	11.87	13.50
18		---	---				---	14.08	14.20	12.81	11.84	13.46
19		---	---				---	14.23	14.36	12.76	11.81	13.36
20		---	---				---	14.55	14.39	12.72	11.75	13.39
21		---	---				---	14.60	14.33	12.72	11.90	13.48
22		---	---				---	14.42	14.13	12.66	11.77	13.47
23		---	---				12.45	13.77	13.72	12.62	11.93	13.52
24		18.60	---				12.43	13.39	13.42	12.59	11.91	13.51
25		21.60	---				12.40	13.59	13.30	12.58	11.89	13.46
26		22.67	---				12.37	13.77	13.20	12.52	11.86	13.42
27		22.50	---				12.33	14.30	13.19	12.49	11.87	13.38
28		18.05	---				12.44	14.23	13.22	12.46	11.92	13.42
29		17.35	---				12.55	14.05	13.43	12.41	11.94	13.38
30		15.96	---				12.58	13.98	13.48	12.38	11.93	13.33
31		---	---				---	14.46	---	12.33	12.02	---

08070000 EAST FORK SAN JACINTO RIVER NEAR CLEVELAND, TX

LOCATION.--Lat 30°20'11", long 95°06'14", Liberty County, Hydrologic Unit 12040103, near left bank at downstream side of bridge on State Highway 105, 1,800 ft downstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 1.2 mi west of Cleveland, and 4.3 mi downstream from Winter Creek.

DRAINAGE AREA.--325 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 107.98 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 13, 1955, at site 1,800 ft upstream at datum 5.00 ft higher.

REMARKS.--Records good except those for estimated daily discharges, Nov. 13-25, which are poor. There are no large diversions above station. Rain gage and gage-height telemeter at station.

AVERAGE DISCHARGE.--47 years, 229 ft³/s (9.57 in/yr), 165,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 80,000 ft³/s Nov. 24, 1940 (gage height, 24.1 ft) present site and datum, from rating curve extended above 27,000 ft³/s; minimum daily, 3.0 ft³/s Aug. 23, 24, Sept. 27, 28, 1956. Maximum stage since at least 1900, that of Nov. 24, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 5, 1935, reached a stage of 23.6 ft, present site and datum, from information by local residents, discharge 53,500 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 13	Unknown	2,580	about 14.3	June 28	2100	2,710	14.45
June 9	2400	*7,320	*17.83				

Minimum discharge, 21 ft³/s Oct. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	410	463	105	66	68	48	177	1180	587	29	68
2	34	416	549	103	66	68	48	660	1550	238	28	147
3	28	253	497	102	179	70	47	858	1210	182	27	85
4	26	164	309	97	1590	73	48	851	382	157	27	78
5	24	180	211	93	722	72	48	548	482	135	26	54
6	22	122	167	87	877	67	48	215	423	113	26	70
7	22	86	142	87	536	65	47	119	723	109	29	113
8	22	73	129	86	335	63	46	85	1280	103	30	123
9	22	64	120	84	252	64	45	69	3480	88	27	139
10	22	59	113	113	328	65	49	61	5790	82	27	94
11	22	100	449	124	335	65	75	62	3770	77	33	59
12	22	1560	1200	114	279	85	68	63	2700	71	32	60
13	23	2250	1670	139	210	109	62	84	2510	65	33	99
14	27	1750	1750	118	167	83	59	88	1860	60	29	69
15	49	1700	1860	101	145	74	52	91	527	57	27	70
16	86	800	1400	92	132	68	46	215	297	58	27	56
17	47	350	448	91	128	64	42	456	1070	56	26	54
18	40	280	277	113	120	61	40	846	1350	52	25	52
19	98	230	225	108	114	60	42	992	1200	49	25	100
20	234	250	191	98	108	57	78	1060	1610	47	28	125
21	92	200	168	93	100	54	95	1210	1420	45	26	152
22	65	170	153	90	92	51	59	427	451	41	25	302
23	58	140	142	83	87	52	50	147	365	39	26	160
24	47	420	133	75	84	52	47	103	222	38	28	103
25	42	1150	124	73	78	52	43	195	165	36	41	98
26	38	1460	116	72	76	51	40	580	163	34	39	73
27	36	760	113	68	74	51	39	1540	1030	34	29	94
28	135	569	112	65	71	51	82	2160	2400	33	68	63
29	453	666	109	65	---	50	173	1700	2470	31	78	83
30	320	652	107	67	---	49	148	1650	1890	31	56	70
31	375	---	106	66	---	48	---	1450	---	30	48	---
TOTAL	2588	17284	13553	2872	7351	1962	1814	18762	43970	2778	1025	2913
MEAN	83.5	576	437	92.6	263	63.3	60.5	605	1466	89.6	33.1	97.1
MAX	453	2250	1860	139	1590	109	173	2160	5790	587	78	302
MIN	22	59	106	65	66	48	39	61	163	30	25	52
CFSM	.26	1.77	1.34	.28	.81	.19	.19	1.86	4.51	.28	.10	.30
IN.	.30	1.98	1.55	.33	.84	.22	.21	2.15	5.03	.32	.12	.33
AC-FT	5130	34280	26880	5700	14580	3890	3600	37210	87210	5510	2030	5780

CAL YR 1985 TOTAL 91065 MEAN 249 MAX 2370 MIN 19 CFSM .77 IN. 10.42 AC-FT 180600
WTR YR 1986 TOTAL 116872 MEAN 320 MAX 5790 MIN 22 CFSM .98 IN. 13.38 AC-FT 231800

08070000 EAST FORK SAN JACINTO RIVER NEAR CLEVELAND, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: September 1961 to April 1964, January 1968 to current year. Biochemical and pesticide analyses: August 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 25...	1420	1530	90	6.60	19.0	100	62	6.8	74	3.3	2500	3800
FEB 05...	1030	679	160	6.50	18.0	150	50	7.6	81	3.4	5100	4500
MAY 20...	1100	1040	110	7.60	21.0	150	55	7.8	87	3.0	500	780
AUG 20...	0840	30	183	6.80	27.5	40	20	9.6	--	1.1	160	190

DATE	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
NOV 25...	26	13	8.5	1.2	6.9	0.6	3.5	13	13	14	0.1	8.1
FEB 05...	42	25	13	2.2	21	1	2.6	17	14	36	<0.1	9.5
MAY 20...	36	10	12	1.5	7.4	0.6	3.1	26	15	11	<0.1	9.5
AUG 20...	38	18	12	1.9	20	1	1.1	20	5.6	41	0.1	13

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	SOLIDS, VOLATILE, SUSPENDED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV 25...	63	44	2	0.17	0.03	0.20	0.16	1.3	1.5	0.10	20
FEB 05...	110	52	10	--	0.02	<0.10	0.07	0.83	0.9	0.05	17
MAY 20...	75	84	22	--	0.03	<0.10	0.09	1.0	1.1	0.13	23
AUG 20...	110	29	8	--	0.01	<0.10	0.05	3.0	3.1	0.04	4.7

08070200 EAST FORK SAN JACINTO RIVER NEAR NEW CANEY, TX

LOCATION.--Lat 30°08'43", long 95°06'14", Montgomery County, Hydrologic Unit 12040103, on right bank at downstream side of bridge on Farm Road 1485, 1.0 mi upstream from Church House Gully, 5.5 mi east of New Caney, and 5.9 mi upstream from Caney Creek.

DRAINAGE AREA.--388 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1952-58, 1969-76, 1983-84. May 1984 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 43.98 ft above National Geodetic Vertical Datum of 1929 (from Texas Highway Department bench mark).

REMARKS.--Records fair except those for estimated daily discharge, June 12 to July 1, which are poor. There are no known diversions.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,030 ft³/s June 11, 1986 (gage height, 21.66 ft); minimum, 23 ft³/s Sept. 4-6, 1985.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1973, reached a stage of 29.6 ft, from floodmark on left bank, identified by local resident. Flood in November 1940 may have been slightly higher.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,600 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 5	0800	2,720	16.15	June 29	unknown	2,700	unknown
June 11	0300	*8,030	*21.66				

Minimum discharge, 26 ft³/s Oct. 8-12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	365	651	113	69	86	58	206	1620	1900	38	54
2	67	379	497	113	69	83	57	378	1280	657	38	91
3	43	371	525	111	72	98	56	648	1500	273	37	152
4	34	231	452	109	1160	139	56	830	1290	206	35	104
5	32	166	293	103	2460	113	56	858	518	179	34	84
6	29	164	216	98	2020	96	56	553	592	153	34	79
7	28	123	178	93	1420	87	56	230	600	136	33	141
8	26	93	155	90	742	83	55	148	1070	129	34	126
9	26	77	142	90	448	80	55	115	2090	122	38	129
10	26	67	134	95	407	80	56	98	4750	110	37	138
11	26	69	534	121	412	80	64	90	6470	102	35	100
12	27	220	1660	128	363	108	78	87	4270	97	42	66
13	27	1130	1950	119	294	133	77	88	3400	90	41	64
14	30	2100	1950	140	234	132	69	103	2700	83	39	111
15	37	1790	1840	126	199	102	67	111	1000	76	38	83
16	59	1840	1890	111	178	91	62	124	600	71	34	70
17	82	756	1510	102	166	84	55	229	800	71	34	59
18	61	336	547	100	158	79	51	530	1100	68	33	53
19	87	263	309	116	146	76	49	799	1000	64	33	54
20	242	275	248	112	135	74	62	952	1300	60	32	107
21	236	262	211	102	125	71	92	1030	1400	57	33	160
22	132	193	188	96	117	67	103	1160	750	55	34	176
23	90	158	171	92	110	64	72	521	450	52	34	263
24	78	408	160	86	105	63	62	195	350	49	33	152
25	60	1340	147	80	100	63	58	197	256	48	34	106
26	56	1690	137	79	97	63	54	308	210	46	40	100
27	50	1610	129	77	94	63	51	612	600	44	45	82
28	171	989	127	72	90	63	79	1370	1000	43	39	96
29	462	641	122	70	---	62	121	2040	2500	41	80	73
30	479	676	119	70	---	61	178	1720	2400	40	84	83
31	358	---	116	70	---	59	---	1760	---	38	65	---
TOTAL	3242	18782	17308	3084	11990	2603	2065	18090	47866	5160	1240	3156
MEAN	105	626	558	99.5	428	84.0	68.8	584	1596	166	40.0	105
MAX	479	2100	1950	140	2460	139	178	2040	6470	1900	84	263
MIN	26	67	116	70	69	59	49	87	210	38	32	53
CFSM	.27	1.61	1.44	.26	1.10	.22	.18	1.51	4.11	.43	.10	.27
IN.	.31	1.80	1.66	.30	1.15	.25	.20	1.73	4.59	.49	.12	.30
AC-FT	6430	37250	34330	6120	23780	5160	4100	35880	94940	10230	2460	6260

CAL YR 1985 TOTAL 111378 MEAN 305 MAX 2450 MIN 23 CFSM .79 IN. 10.68 AC-FT 220900
WTR YR 1986 TOTAL 134586 MEAN 369 MAX 6470 MIN 26 CFSM .95 IN. 12.90 AC-FT 267000

08070200 EAST FORK SAN JACINTO RIVER NEAR NEW CANEY, TX--Continued

WATER-QUALITY RECORDS

LOCATION.--Lat 30°08'43", long 95°07'27", Montgomery County, Hydrologic Unit 12040103, at bridge on Farm Road 1485, and 5.5 mi east of New Caney.

PERIOD OF RECORD.--Chemical, biochemical, and pesticide analyses: August 1983 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1984 to current year.
WATER TEMPERATURES: October 1984 to current year.

INSTRUMENTATION.--Beginning October 1984, specific conductance and water temperature are recorded continuously at this station.

REMARKS.--Interruptions in the record were due to malfunctions of the instrument. Where maximum or minimum specific conductance values are not shown, mean value is estimated. Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the Geological Survey District office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 870 microsiemens May 7, 1985; minimum, 41 microsiemens May 29, 31, 1986.
WATER TEMPERATURES: Maximum, 31.5°C July 30, 31, Aug 1, 1986; minimum, 5.5 °C Feb. 4, 5, Dec. 16, 1985.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 484 microsiemens Mar. 18; minimum daily 41 microsiemens May 29, 31.
WATER TEMPERATURES: Maximum, 31.5°C July 30, 31, Aug. 1; minimum, 5.5°C Dec. 16.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV												
24-29	0900	1200	90	--	--	--	--	--	--	--	--	--
26...	1100	1700	73	6.70	20.0	140	83	6.8	75	2.8	120	2800
FEB												
06...	0905	2140	69	6.10	15.0	150	53	8.2	81	3.5	5800	6600
MAY												
20...	0800	940	135	7.60	20.5	150	48	7.7	85	2.5	600	1100
JUN												
10...	1045	3680	93	--	--	--	--	--	--	--	--	--
AUG												
19...	0830	33	201	7.10	27.0	50	22	6.8	85	2.2	140	170

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
NOV												
24-29	28	12	9.1	1.4	6.6	0.6	2.4	16	13	12	0.1	8.6
26...	25	15	8.0	1.1	6.3	0.6	2.2	10	14	12	0.1	7.6
FEB												
06...	19	11	5.7	1.1	6.8	0.7	1.5	8	12	11	<0.1	4.6
MAY												
20...	37	5	12	1.8	12	0.9	3.0	32	13	15	0.1	11
JUN												
10...	33	7	11	1.4	6.6	0.5	2.0	26	13	8.9	<0.1	8.6
AUG												
19...	39	9	12	2.3	25	2	1.8	30	7.7	39	0.1	20

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)
NOV												
24-29	63	--	--	--	0.05	<0.10	0.13	0.87	1.0	0.10	--	--
26...	57	68	6	0.06	0.04	0.10	0.11	0.89	1.0	0.11	20	--
FEB												
06...	48	62	11	--	0.02	<0.10	0.06	0.84	0.9	0.05	45	<1
MAY												
20...	87	54	10	--	0.03	<0.10	0.07	0.93	1.0	0.12	20	--
JUN												
10...	67	--	--	0.08	0.02	0.10	0.09	0.61	0.7	0.09	--	--
AUG												
19...	130	18	5	0.28	0.02	0.30	0.09	0.61	0.7	0.14	5.5	<1

08070200 EAST FORK SAN JACINTO RIVER NEAR NEW CANEY, TX--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV											
24-29	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
FEB											
06...	41	<1	<10	2	350	1	17	<0.1	<1	1	12
MAY											
20...	--	--	--	--	--	--	--	--	--	--	--
JUN											
10...	--	--	--	--	--	--	--	--	--	--	--
AUG											
19...	71	10	<10	8	260	<5	53	<0.1	<1	<1	42

DATE	AME-TRYNE TOTAL	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	METHO-MYL TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	PROPHAM TOTAL (UG/L)	SEVIN, TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)
NOV											
24-29	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
FEB											
06...	<0.1	<0.1	<0.1	<2.0	<0.1	<0.1	<0.1	<2.0	<2.0	<0.1	<0.1
MAY											
20...	--	--	--	--	--	--	--	--	--	--	--
JUN											
10...	--	--	--	--	--	--	--	--	--	--	--
AUG											
19...	--	--	--	--	--	--	--	--	--	--	--

MONTHLY AND ANNUAL MEANS AND LOADS FOR OCTOBER 1985 TO SEPTEMBER 1986

MONTH YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-MHOS)	DIS-SOLVED SOLIDS (MG/L)	DIS-SOLVED SOLIDS (TONS)	DIS-SOLVED CHLORIDE (MG/L)	DIS-SOLVED CHLORIDE (TONS)	DIS-SOLVED SULFATE (MG/L)	DIS-SOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT. 1985	3242	180	108	949	30	267	11	99	44
NOV. 1985	18782	103	67	3390	14	722	11	561	30
DEC. 1985	17308	101	65	3060	14	655	11	504	29
JAN. 1986	3084	219	129	1070	39	328	10	87	51
FEB. 1986	11990	105	67	2180	15	484	11	344	30
MAR. 1986	2603	268	150	1050	54	376	5.2	36	55
APR. 1986	2065	255	145	809	49	273	7.6	42	55
MAY 1986	18090	132	81	3940	22	1070	9.0	442	33
JUNE 1986	47066	110	69	8890	17	2240	9.0	1160	29
JULY 1986	5160	233	136	1890	43	599	9.8	136	53
AUG. 1986	1240	217	128	430	39	130	11	37	51
SEPT 1986	3156	148	93	793	23	192	13	110	40
TOTAL	134586	**	**	28400	**	7340	**	3560	**
WTD.AVG.	369	127	78	**	20	**	9.8	**	33

08070200 EAST FORK SAN JACINTO RIVER NEAR NEW CANEY, TX--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	134	86	110	157	141	146	121	119	120	172	169	171
2	130	84	110	158	153	155	123	119	122	176	172	174
3	150	131	140	163	149	156	171	121	135	179	175	177
4	162	151	158	162	144	152	173	150	156	183	179	182
5	163	152	158	157	147	151	180	156	167	187	183	185
6	155	146	151	178	158	168	194	181	189	190	186	188
7	160	154	157	207	179	195	193	188	191	192	189	191
8	175	160	165	211	206	209	199	191	195	196	192	194
9	184	175	180	216	210	212	202	196	200	200	196	198
10	193	182	187	223	216	220	207	201	205	203	200	202
11	200	194	197	224	182	213	207	86	161	206	203	204
12	226	201	212	196	159	190	83	66	68	208	205	207
13	249	228	238	133	55	75	74	68	71	209	207	208
14	258	249	252	67	60	63	76	73	74	210	207	208
15	242	219	228	73	67	71	81	76	79	219	209	214
16	273	226	247	83	73	79	84	81	83	234	219	227
17	232	147	170	101	83	90	87	84	85	237	233	235
18	141	113	127	111	99	105	96	88	91	241	236	238
19	124	57	101	120	111	116	108	97	103	241	238	240
20	98	68	86	123	119	121	117	109	113	239	236	238
21	135	97	119	126	122	124	123	117	121	237	234	236
22	144	132	137	124	121	123	130	124	128	259	234	239
23	153	137	144	125	119	122	136	130	134	246	230	237
24	189	153	172	125	90	116	140	136	139	250	236	242
25	227	189	208	104	87	94	145	141	143	264	251	256
26	268	227	249	110	105	108	149	144	147	260	252	256
27	302	261	283	118	107	111	154	149	151	294	261	270
28	318	227	268	119	115	117	158	153	156	303	262	273
29	226	187	203	120	117	119	163	158	161	282	263	271
30	245	212	230	124	120	122	167	163	165	268	264	267
31	217	143	180	---	---	---	170	166	168	295	267	278
MONTH	318	57	180	224	55	135	207	66	136	303	169	223

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	276	274	275	245	192	219	254	245	248	293	173	224
2	338	276	292	254	222	240	268	247	260	194	152	173
3	374	215	307	251	226	246	275	256	266	272	196	230
4	201	59	119	219	183	192	279	272	275	331	251	297
5	64	58	61	191	184	188	275	263	269	364	279	334
6	79	64	71	196	184	188	269	261	265	269	225	234
7	90	81	85	226	196	209	295	262	272	233	166	203
8	102	90	97	252	226	235	327	267	280	164	155	159
9	113	102	108	298	253	270	319	268	296	158	155	157
10	116	112	114	344	299	308	342	258	276	157	155	156
11	154	114	129	355	342	350	280	261	269	162	157	160
12	139	124	127	342	297	312	264	254	259	162	158	160
13	154	126	139	303	288	295	253	243	246	171	163	168
14	137	131	134	290	276	284	249	243	246	215	171	194
15	143	137	140	277	254	266	246	234	238	217	187	202
16	171	143	159	253	241	246	248	234	242	196	178	185
17	154	151	152	251	244	246	273	246	256	202	179	196
18	159	152	154	484	244	365	292	258	270	176	156	165
19	158	155	157	312	272	285	307	263	282	156	139	144
20	159	155	157	280	274	275	324	277	291	140	131	136
21	162	158	161	284	276	280	275	244	265	131	123	126
22	163	161	163	300	278	290	243	217	234	124	121	122
23	165	163	164	324	291	305	242	239	241	146	122	134
24	168	164	166	343	289	312	279	202	226	166	147	157
25	172	167	170	348	281	311	263	194	217	176	119	159
26	305	172	212	346	287	326	236	215	220	192	144	173
27	300	188	225	326	263	287	241	225	231	184	117	148
28	263	201	234	352	251	302	374	223	284	110	42	72
29	---	---	---	362	254	290	321	227	250	44	41	42
30	---	---	---	280	259	268	264	206	232	45	43	44
31	---	---	---	260	249	254	---	---	---	43	41	42
MONTH	374	58	160	484	183	272	374	194	257	364	41	164

08070200 EAST FORK SAN JACINTO RIVER NEAR NEW CANEY, TX--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	47	42	45	295	223	251			228	---	---	195
2	62	44	47	225	219	222			228	---	---	175
3	130	68	105	---	---	220			234	---	---	150
4	249	109	167	---	---	221			230	---	---	162
5	330	249	294	---	---	221			226	169	148	157
6	311	242	281	---	---	220			232	168	129	155
7	245	149	216	---	---	219			234	161	117	137
8	160	66	105	---	---	221			228	167	121	153
9	64	48	56	---	---	223			220	159	149	153
10	49	42	45	---	---	223			222	175	125	151
11	61	44	52	---	---	222			225	123	116	119
12	84	58	73	---	---	224			218	132	116	121
13	63	46	54	---	---	224			216	144	133	139
14	106	57	82	---	---	223			220	159	145	152
15	140	108	124	---	---	225			223	157	152	155
16	184	142	162	---	---	224			225	158	148	153
17	191	183	187	---	---	225			228	154	150	152
18	188	184	187	---	---	226			230	152	147	149
19	190	186	188	---	---	225			234	193	149	171
20	186	173	181	---	---	227			235	203	194	200
21	172	152	162	---	---	226			230	198	140	165
22	152	142	146	---	---	227			225	146	138	142
23	143	140	141	---	---	227			226	172	118	150
24	145	140	143	---	---	228			228	116	112	113
25	273	144	176	---	---	229			221	126	115	120
26	334	165	205	---	---	232			214	136	126	133
27	331	189	261	---	---	231			205	136	128	131
28	186	67	99	---	---	233			212	137	130	134
29	236	71	119	---	---	232			190	144	137	140
30	330	253	311	---	---	229			181	165	129	140
31	---	---	---	---	---	229			186	---	---	---
MONTH	334	42	147	295	219	226			221	203	112	149

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	20.5	19.0	19.5	17.0	16.0	16.5	16.5	15.0	16.0	12.0	11.5	11.5
2	20.0	18.0	19.0	16.0	15.5	16.0	14.5	12.5	13.5	12.5	11.0	11.5
3	20.5	17.5	19.0	15.5	14.5	15.0	12.5	11.5	12.0	12.0	11.0	11.5
4	21.0	18.5	20.0	15.5	14.0	14.5	12.0	11.5	11.5	13.0	11.5	12.0
5	20.5	18.5	19.5	15.5	13.5	14.5	12.5	11.5	12.0	12.0	10.5	11.5
6	19.5	16.5	18.0	15.5	14.0	14.5	12.5	11.0	11.5	10.5	9.5	10.0
7	19.5	16.5	18.5	16.0	14.5	15.0	12.0	11.0	11.5	10.5	10.0	10.0
8	20.5	18.0	19.5	16.5	14.5	15.5	13.0	11.5	12.0	10.0	9.0	9.5
9	21.5	19.0	20.5	18.0	16.0	17.0	14.0	12.5	13.5	9.0	8.0	8.5
10	23.0	20.5	21.5	19.5	17.0	18.5	15.5	14.0	15.0	9.0	8.0	8.5
11	23.5	21.5	22.5	19.5	19.0	19.0	16.0	11.5	14.0	8.5	7.0	8.0
12	24.0	22.5	23.0	20.5	19.5	20.0	11.5	10.0	10.5	9.0	7.0	8.0
13	25.0	23.0	24.0	21.0	20.5	21.0	10.0	8.5	9.0	9.0	7.5	8.0
14	24.5	23.5	24.5	21.5	21.0	21.0	8.0	6.5	7.5	9.5	7.5	8.5
15	24.0	23.0	23.5	22.0	21.5	21.5	6.5	6.0	6.0	10.0	8.0	9.0
16	23.5	22.5	23.0	21.5	20.0	20.5	6.0	5.5	6.0	10.0	9.0	9.5
17	23.5	22.5	23.0	20.5	19.5	20.0	6.5	6.0	6.0	11.5	10.0	11.0
18	24.0	22.5	23.5	21.0	20.0	20.5	8.0	6.5	7.5	13.0	11.0	12.0
19	23.5	23.0	23.0	21.5	20.5	21.0	9.0	8.0	8.5	13.0	11.5	12.5
20	23.0	22.5	22.5	21.0	19.0	20.0	9.0	8.0	8.5	13.5	11.5	12.5
21	23.0	22.5	22.5	18.5	17.0	18.0	9.0	7.5	8.5	14.5	12.5	13.5
22	23.0	22.0	22.5	18.0	17.0	17.5	9.5	8.0	8.5	14.5	13.5	14.0
23	23.5	22.0	22.5	18.5	17.0	17.5	10.5	9.0	9.5	14.0	12.5	13.5
24	24.5	22.5	23.5	18.5	18.0	18.0	10.5	9.0	9.5	13.5	12.0	12.5
25	24.0	22.5	23.0	19.5	18.5	19.0	9.5	8.5	9.0	14.5	13.0	13.5
26	23.5	22.0	22.5	20.5	19.5	20.0	9.0	7.5	8.0	13.5	12.0	12.5
27	22.5	21.0	22.0	20.5	20.0	20.5	9.5	8.5	9.0	12.0	10.5	11.5
28	21.0	18.5	19.5	20.0	18.0	19.0	11.0	9.5	10.0	12.0	9.0	10.5
29	18.5	18.0	18.0	18.0	16.5	17.0	11.0	10.0	10.5	13.0	10.0	11.5
30	18.0	17.0	17.5	16.5	16.0	16.0	11.0	9.5	10.5	14.0	11.5	13.0
31	17.5	16.5	17.0	---	---	---	13.0	11.0	12.0	15.5	13.5	14.5
MONTH	25.0	16.5	21.0	22.0	13.5	18.0	16.5	5.5	10.0	15.5	7.0	11.0

08070200 EAST FORK SAN JACINTO RIVER NEAR NEW CANEY, TX--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	17.0	15.0	16.0	16.0	13.0	14.5	22.0	18.5	20.0	23.0	21.5	22.5
2	18.0	16.0	17.0	16.0	12.5	14.5	21.5	19.5	20.5	21.5	20.5	21.0
3	18.5	17.5	18.0	16.5	14.0	15.5	21.0	20.0	20.5	20.5	20.0	20.0
4	18.5	18.0	18.0	17.0	14.0	15.5	22.0	20.5	21.0	21.0	20.0	20.5
5	18.0	17.0	18.0	17.0	14.5	15.5	23.0	21.0	22.0	21.0	20.0	20.5
6	16.5	15.0	15.5	17.5	14.5	16.0	23.0	21.5	22.5	22.5	21.0	21.5
7	15.0	14.0	14.0	17.5	14.0	16.0	23.5	21.5	22.5	23.5	21.5	22.5
8	14.5	14.0	14.0	18.0	14.5	16.5	25.0	21.5	23.5	24.5	22.5	23.5
9	13.5	12.5	13.0	19.5	16.5	18.0	24.0	21.0	22.5	26.0	23.5	24.5
10	12.0	10.5	11.5	21.0	18.0	19.0	21.0	19.0	20.0	25.0	23.5	24.0
11	10.5	9.0	9.5	20.5	19.5	20.0	19.5	18.5	19.0	26.0	22.5	24.0
12	9.0	8.0	8.5	21.0	19.0	20.0	20.5	18.5	19.5	26.5	23.0	24.5
13	8.5	8.0	8.5	20.5	18.5	19.5	21.5	19.0	20.5	27.0	23.0	25.0
14	10.5	8.5	9.5	20.0	18.0	19.0	22.5	20.0	21.0	26.0	23.0	24.5
15	12.0	9.5	11.0	19.5	17.5	18.5	23.0	19.5	21.0	25.0	24.0	24.5
16	14.0	11.5	13.0	20.5	17.0	18.5	21.5	19.0	20.5	24.5	24.0	24.0
17	17.0	14.0	15.5	20.0	17.0	18.5	21.0	18.5	19.5	24.5	22.5	23.5
18	18.5	15.5	17.0	21.0	18.5	19.5	21.5	19.5	20.5	22.5	21.5	22.0
19	20.0	17.5	18.5	20.0	18.0	19.0	21.5	20.5	20.5	21.5	21.0	21.5
20	20.5	18.5	19.5	19.0	16.5	18.0	23.0	20.0	21.5	21.0	20.0	20.5
21	19.5	18.0	19.0	18.0	15.0	16.5	23.0	19.0	21.0	21.5	20.5	21.0
22	18.0	16.0	17.5	17.5	14.0	15.5	22.0	19.0	20.5	22.0	21.0	21.5
23	17.0	14.5	15.5	17.5	13.5	15.5	22.5	18.5	20.5	24.0	21.5	22.5
24	17.0	14.0	15.5	18.0	14.0	16.0	22.5	19.0	20.5	25.5	23.0	24.0
25	17.0	14.0	15.5	17.5	14.5	16.0	22.0	19.5	21.0	25.0	23.5	24.0
26	18.0	14.5	16.5	18.0	15.5	17.0	22.5	20.5	21.5	24.0	23.0	23.5
27	18.0	15.5	17.0	19.5	16.5	18.0	23.0	21.0	22.0	23.0	22.5	23.0
28	17.0	15.0	16.0	20.5	17.0	18.5	24.0	21.0	22.5	23.5	22.5	23.0
29	---	---	---	20.5	17.0	19.0	23.5	22.0	22.5	24.0	23.5	23.5
30	---	---	---	20.5	17.5	19.0	24.0	22.5	23.5	24.0	24.0	24.0
31	---	---	---	20.5	18.0	19.5	---	---	---	24.0	23.5	24.0
MONTH	20.5	8.0	15.0	21.0	12.5	17.5	25.0	18.5	21.0	27.0	20.0	23.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.5	24.0	24.0	28.0	27.5	27.5	31.5	28.5	30.0	26.5	24.5	25.5
2	24.5	24.0	24.0	28.0	27.0	27.5	31.0	28.5	29.5	27.0	24.5	25.5
3	25.0	24.5	25.0	29.0	27.0	27.5	31.0	28.0	29.5	27.0	25.5	26.0
4	25.5	25.0	25.0	29.0	27.0	28.0	30.5	27.5	29.0	27.5	25.5	26.5
5	25.5	24.5	25.0	29.5	27.0	28.0	29.0	27.5	28.0	27.5	25.5	26.5
6	25.0	24.5	24.5	28.5	27.0	28.0	28.0	26.5	27.0	26.5	25.5	26.0
7	25.0	24.5	24.5	28.5	26.5	27.5	28.0	26.0	27.0	25.5	24.5	25.0
8	24.5	24.5	24.5	29.0	26.5	27.5	28.5	26.0	27.5	26.0	24.5	25.0
9	24.5	24.0	24.5	29.0	26.5	27.5	27.5	26.5	27.0	26.5	24.0	25.0
10	24.5	24.0	24.0	28.5	26.5	27.5	29.0	26.0	27.5	26.0	24.5	25.5
11	25.0	24.0	24.5	29.0	26.5	27.5	28.5	26.5	27.5	27.0	25.0	26.0
12	25.0	24.5	25.0	29.5	26.5	28.0	27.5	26.0	26.5	27.0	25.5	26.5
13	25.5	25.0	25.5	30.0	27.0	28.5	28.5	26.0	27.0	27.0	25.5	26.0
14	26.0	25.0	25.5	29.5	27.0	28.0	28.0	26.0	27.0	27.0	25.5	26.0
15	26.5	26.0	26.0	29.5	27.0	28.0	28.0	26.5	27.0	27.5	25.5	26.5
16	27.0	25.0	26.0	29.5	26.5	28.0	28.5	26.0	27.5	27.0	25.5	26.5
17	25.0	23.5	24.5	30.0	26.5	28.0	30.0	27.0	28.5	27.5	25.5	26.5
18	25.0	24.0	24.5	29.5	26.5	28.0	30.0	27.5	28.5	27.5	25.5	26.5
19	25.0	24.5	25.0	29.5	26.5	28.0	30.0	27.5	28.5	26.5	25.5	26.0
20	26.0	25.0	25.5	29.5	27.0	28.0	29.0	27.0	28.0	26.5	25.5	26.0
21	26.5	26.0	26.0	30.0	27.0	28.5	29.0	27.0	28.0	25.5	25.0	25.5
22	27.0	26.5	26.5	30.0	27.5	29.0	28.5	26.5	27.5	26.5	25.0	25.5
23	27.5	26.5	27.0	30.0	27.5	29.0	27.5	26.0	26.5	26.0	25.0	25.5
24	27.5	26.0	26.5	30.5	28.0	29.0	27.5	25.0	26.5	26.5	25.0	25.5
25	28.0	26.0	27.0	30.5	28.0	29.0	28.5	25.0	27.0	27.0	25.0	26.0
26	27.0	26.0	26.5	30.5	28.0	29.0	28.0	26.0	27.0	27.0	25.5	26.0
27	27.0	26.0	26.0	30.5	28.0	29.0	28.0	26.0	27.0	27.5	25.5	26.5
28	26.0	25.0	25.5	31.0	28.0	29.5	27.0	25.5	26.0	27.0	25.5	26.5
29	27.0	25.5	26.0	31.0	28.5	29.5	27.0	24.5	25.5	27.5	25.5	26.5
30	27.5	27.0	27.0	31.5	28.5	30.0	26.0	23.5	24.5	28.0	25.5	26.5
31	---	---	---	31.5	28.0	30.0	25.5	23.0	24.5	---	---	---
MONTH	28.0	23.5	25.5	31.5	26.5	28.5	31.5	23.0	27.5	28.0	24.0	26.0

08070500 CANEY CREEK NEAR SPLENDORA, TX

LOCATION.--Lat 30°15'34", long 95°18'08", Montgomery County, Hydrologic Unit 12040103, on left bank at downstream side of bridge on Farm Road 2090, 4 mi downstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, and 8 mi west of Splendora.

DRAINAGE AREA.--105 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1943 to current year. Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.--WSP 1732: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 118.44 ft above National Geodetic Vertical Datum of 1929. Prior to June 17, 1965, at site 170 ft upstream at datum 5.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. No diversion above station.

AVERAGE DISCHARGE.--43 years, 77.3 ft³/s (9.99 in/yr), 56,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,000 ft³/s June 14, 1973 (gage height, 26.30 ft); minimum, 4.1 ft³/s Oct. 26, 1956, caused by construction upstream.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1885, 27.0 ft in November 1940, present site and datum, from information by local resident. Flood in May 1935 reached a stage of 24.3 ft, present site and datum, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 25	1400	2,320	14.44	June 10	0100	1,820	13.08
May 26	1400	*2,390	*14.63				

Minimum discharge, 14 ft³/s Aug. 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	68	163	44	31	29	21	60	522	44	18	21
2	25	41	131	43	31	28	21	722	142	41	17	23
3	21	43	82	43	33	46	20	275	86	39	17	24
4	20	40	70	42	98	87	20	106	67	37	17	22
5	19	33	64	40	131	42	21	56	62	35	17	20
6	18	28	59	38	221	35	20	43	94	33	18	26
7	17	26	55	38	88	32	19	38	107	31	19	33
8	18	25	52	38	63	30	19	33	443	49	18	35
9	18	24	52	39	60	30	19	30	1200	68	18	26
10	18	24	51	47	131	30	21	29	881	39	18	22
11	18	103	220	48	95	29	31	31	333	33	18	31
12	18	853	691	42	62	46	29	32	1120	30	19	24
13	18	177	645	39	52	55	24	27	326	28	19	59
14	20	79	253	37	47	39	22	25	118	27	18	47
15	36	125	115	37	45	33	20	32	87	26	18	29
16	53	113	85	37	44	30	18	131	77	27	18	36
17	31	66	73	42	43	27	17	95	632	27	18	27
18	32	52	67	50	42	27	17	382	653	25	17	23
19	41	47	63	44	40	27	17	270	290	23	17	42
20	32	42	58	40	40	25	34	70	164	23	17	28
21	27	38	55	38	38	23	41	47	104	23	16	33
22	27	36	53	37	36	22	24	38	84	22	16	36
23	31	35	52	35	34	23	20	32	70	22	16	36
24	29	731	51	33	33	23	17	29	63	21	17	27
25	25	1880	48	33	33	22	17	354	56	21	18	23
26	23	429	45	33	33	22	17	1840	53	20	17	21
27	22	171	45	31	32	23	17	319	96	19	16	21
28	43	406	46	31	31	23	44	350	86	19	49	21
29	89	150	46	31	---	22	48	157	59	19	44	29
30	62	97	44	32	---	21	28	81	49	18	27	30
31	93	---	44	32	---	21	---	286	---	18	22	---
TOTAL	982	5982	3578	1194	1667	972	703	6020	8124	907	614	875
MEAN	31.7	199	115	38.5	59.5	31.4	23.4	194	271	29.3	19.8	29.2
MAX	93	1880	691	50	221	87	48	1840	1200	68	49	59
MIN	17	24	44	31	31	21	17	25	49	18	16	20
CFSM	.30	1.90	1.10	.37	.57	.30	.22	1.85	2.58	.28	.19	.28
IN.	.35	2.12	1.27	.42	.59	.34	.25	2.13	2.88	.32	.22	.31
AC-FT	1950	11870	7100	2370	3310	1930	1390	11940	16110	1800	1220	1740

CAL YR 1985 TOTAL 31439 MEAN 86.1 MAX 1880 MIN 14 CFSM .82 IN. 11.14 AC-FT 62360
WTR YR 1986 TOTAL 31618 MEAN 86.6 MAX 1880 MIN 16 CFSM .82 IN. 11.20 AC-FT 62710

08070500 CANEY CREEK NEAR SPLENDORA, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.-- Chemical analyses: October 1962 to April 1964. Chemical, biochemical, and pesticide analyses: August 1983 to current year. Sediment analyses: February 1966, April 1973 to March 1975

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV												
24-27	0600	945	69	--	--	--	--	--	--	--	--	--
25...	1230	2170	51	6.80	20.0	140	93	8.1	89	3.3	4500	5900
FEB												
06...	0600	274	60	7.00	12.0	150	69	9.2	86	7.8	K9200	K10000
MAY												
20...	1232	67	124	6.80	19.5	150	35	7.8	85	1.8	310	370
AUG												
20...	1000	17	90	6.70	25.0	30	11	11.0	133	0.8	130	260

DATE	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
NOV												
24-27	24	9	7.6	1.2	3.9	0.4	2.2	15	6.8	9.1	0.1	7.9
25...	19	6	5.8	1.0	3.7	0.4	2.4	13	11	4.8	<0.1	6.3
FEB												
06...	18	8	5.2	1.1	4.9	0.5	2.1	10	12	7.8	<0.1	5.3
MAY												
20...	45	11	15	1.9	7.7	0.5	2.3	34	9.4	13	<0.1	12
AUG												
20...	22	4	6.5	1.4	8.6	0.8	1.3	18	7.5	12	<0.1	14

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	SOLIDS, VOLATILE, SUSPENDED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DISSOLVED (UG/L AS AS)
NOV												
24-27	48	--	--	0.07	0.03	0.10	0.11	0.79	0.9	0.11	--	--
25...	43	120	14	--	0.04	<0.10	0.08	1.0	1.1	0.11	20	--
FEB												
06...	45	100	28	0.16	0.04	0.20	0.17	1.4	1.6	0.11	25	<1
MAY												
20...	82	54	6	0.18	0.02	0.20	0.07	0.63	0.7	0.08	12	--
AUG												
20...	63	17	3	--	<0.01	0.30	0.03	0.27	0.3	0.04	3.4	1

DATE	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)
NOV											
24-27	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
FEB											
06...	36	<1	<10	2	500	<1	43	<0.1	<1	<1	16
MAY											
20...	--	--	--	--	--	--	--	--	--	--	--
AUG											
20...	39	<1	<10	1	370	<5	17	<0.1	<1	<1	14

DATE	AMETRYNE TOTAL	ATRAZINE, TOTAL (UG/L)	CYANAZINE TOTAL (UG/L)	METHOMYL TOTAL (UG/L)	PROMETONE TOTAL (UG/L)	PROMETRYNE TOTAL (UG/L)	PROPAZINE TOTAL (UG/L)	PROPHAM TOTAL (UG/L)	SEVIN, TOTAL (UG/L)	SIMAZINE TOTAL (UG/L)	SIMETRYNE TOTAL (UG/L)
NOV											
24-27	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
FEB											
06...	<0.1	<0.1	<0.1	<2.0	<0.1	<0.1	<0.1	<2.0	<2.0	<0.1	<0.1
MAY											
20...	--	--	--	--	--	--	--	--	--	--	--
AUG											
20...	--	--	--	--	--	--	--	--	--	--	--

08071280 LUCE BAYOU ABOVE LAKE HOUSTON NEAR HUFFMAN, TX

LOCATION.--Lat 30°06'34", long 95°03'35", Liberty County, Hydrologic Unit 12040103, on left bank, in Tricontinental Pipeline Company right of way, 1.1 mi upstream from Key Gully, 3.1 mi east of Huffman-Cleveland Road, and 6.3 mi northeast of Huffman.

DRAINAGE AREA.--218 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low flow measurements, at site 2.2 mi downstream, water years, 1970, 1972, 1975; February to April 1984, discharge measurements only. May 1984 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 39.91 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 31 to Nov. 3, Nov. 30, and Dec. 1. Records good except those for estimated daily discharges, which are fair. There is no known regulation or diversions.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,030 ft³/s June 12, 1986 (gage height, 26.01 ft) from rating curve extended above 2,100 ft³/s; no flow July 16-23, 1984.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 25	2400	1,440	21.10	June 12	0500	*4,030	*26.01
Dec. 14	1400	2,530	23.59	June 19	2100	2,150	22.83
Feb. 7	0100	3,070	24.55				

Minimum discharge, 0.17 ft³/s Aug. 3-6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	107	500	610	18	6.3	9.5	3.4	17	377	471	.10	11
2	65	340	386	16	6.1	8.9	2.9	37	327	518	.06	4.0
3	22	220	227	15	19	33	2.8	184	237	186	.04	2.4
4	7.4	148	177	14	1030	202	2.8	207	200	64	.12	27
5	3.3	99	154	13	1240	71	2.7	134	198	41	.17	7.6
6	7.5	67	112	12	2070	59	2.6	42	105	29	.25	30
7	6.0	48	76	11	2960	39	2.6	7.1	122	19	.69	130
8	4.3	36	55	11	2360	26	2.5	1.8	371	13	.72	85
9	3.4	27	43	10	1770	17	2.6	2.5	938	9.5	.79	92
10	2.8	19	38	11	1400	13	4.1	7.4	1030	7.8	.64	53
11	2.4	25	361	12	1030	11	4.7	6.7	2050	6.4	.56	76
12	2.1	269	1370	12	715	20	4.5	5.2	3810	6.0	4.7	16
13	1.9	265	2130	14	457	28	4.4	4.5	2660	5.3	9.6	24
14	2.1	220	2480	14	270	65	6.0	4.0	1920	4.4	9.3	31
15	3.1	229	2310	14	165	45	4.4	3.9	1360	3.8	6.6	27
16	4.4	291	1890	14	116	29	3.3	3.5	963	3.1	3.0	35
17	4.0	307	1420	14	87	18	2.6	5.0	1320	2.5	1.6	19
18	4.9	202	1020	15	70	13	2.2	37	1670	2.2	.85	10
19	26	109	669	15	57	10	2.0	105	1970	1.9	.63	8.1
20	158	73	285	15	47	8.[illegible]	4.2	139	2090	1.8	.44	50
21	158	52	145	14	40	6.[illegible]	5.2	138	1780	1.7	.45	170
22	161	40	104	13	33	6.[illegible]	19	77	1280	1.3	.74	254
23	138	31	79	13	27	5.[illegible]	15	42	887	1.0	.77	256
24	72	263	62	12	21	4.[illegible]	6.2	25	528	.83	.75	146
25	30	1250	49	10	17	4.[illegible]	4.1	23	234	.73	.54	68
26	9.3	1350	41	9.4	14	4.[illegible]	3.0	28	124	.57	.42	41
27	5.3	1110	35	8.4	12	4.[illegible]	2.6	56	177	.44	.33	27
28	183	1080	31	7.7	11	3.[illegible]	18	160	252	.34	1.6	17
29	603	1000	28	7.4	---	3.[illegible]	23	127	319	.27	6.0	12
30	552	770	24	6.9	---	3.[illegible]	40	156	381	.20	1.2	9.8
31	590	---	21	6.5	---	3.[illegible]	---	408	---	.15	23	---
TOTAL	2939.2	10440	16432	378.3	16050.4	775.[illegible]	203.4	2193.6	29600	1403.23	76.66	1738.9
MEAN	94.8	348	530	12.2	573	25.[illegible]	6.78	70.8	989	45.3	2.47	58.0
MAX	603	1350	2480	18	2960	2[illegible]	40	408	3810	518	23	256
MIN	1.9	19	21	6.5	6.1	3.[illegible]	2.0	1.8	105	.15	.04	2.4
CFSM	.43	1.60	2.43	.06	2.63	.1[illegible]	.03	.32	4.54	.21	.01	.27
IN.	.50	1.78	2.80	.06	2.74	.1[illegible]	.03	.37	5.06	.24	.01	.30
AC-FT	5830	20710	32590	750	31840	154[illegible]	403	4350	58870	2780	152	3450

CAL YR 1985 TOTAL 73117.23 MEAN 200 MAX 2480 MIN .21 CFSM .92 IN. 12.48 AC-FT 145000
WTR YR 1986 TOTAL 82311.49 MEAN 226 MAX 3810 MIN .04 CFSM 1.04 IN. 14.05 AC-FT 163300

08071280 LUCE BAYOU ABOVE LAKE HOUSTON NEAR HUFFMAN, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical, biochemical, and pesticide analyses: February 1984 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 27...	1530	1080	69	6.50	21.0	100	22	4.4	49	2.7	270	580
JAN 27...	0815	8.6	310	6.50	17.0	100	17	7.6	79	1.3	--	--
MAR 03-07	1830	98	86	--	--	--	--	--	--	--	--	--
MAY 22...	1000	80	225	6.20	20.0	150	30	6.8	75	2.1	150	550
AUG 19...	0730	0.66	246	6.90	26.5	70	10	4.0	50	0.8	120	190

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
NOV 27...	19	11	5.3	1.4	6.3	0.7	2.3	8	11	13	<0.1	5.6
JAN 27...	59	21	18	3.4	35	2	2.2	38	12	65	<0.1	9.6
MAR 03-07	24	13	7.5	1.3	8.0	0.7	1.5	11	13	12	<0.1	5.0
MAY 22...	36	25	11	2.1	27	2	1.9	11	13	47	<0.1	4.2
AUG 19...	48	0	15	2.6	29	2	2.9	51	12	40	0.2	6.9

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)
NOV 27...	50	10	4	--	0.02	<0.10	0.07	1.0	1.1	0.06	28	--
JAN 27...	170	5	4	--	<0.01	<0.10	0.09	0.61	0.7	0.09	14	<1
MAR 03-07	55	--	--	0.28	0.02	0.30	0.04	1.2	1.2	0.12	--	--
MAY 22...	110	34	10	0.08	0.02	0.10	0.09	0.91	1.0	0.12	23	--
AUG 19...	140	3	2	--	<0.01	<0.10	0.03	0.67	0.7	0.10	12	1

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV 27...	--	--	--	--	--	--	--	--	--	--	--
JAN 27...	130	<1	<10	<1	600	1	9	0.1	<1	<1	14
MAR 03-07	--	--	--	--	--	--	--	--	--	--	--
MAY 22...	--	--	--	--	--	--	--	--	--	--	--
AUG 19...	100	1	<10	1	450	<5	110	<0.1	<1	<1	10

DATE	AME-TRYNE TOTAL	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	METHO-MYL TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	PROPHAM TOTAL (UG/L)	SEVIN, TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)
NOV 27...	--	--	--	--	--	--	--	--	--	--	--
JAN 27...	<0.1	<0.1	<0.1	<2.0	<0.1	<0.1	<0.1	<2.0	<2.0	<0.1	<0.1
MAR 03-07	--	--	--	--	--	--	--	--	--	--	--
MAY 22...	--	--	--	--	--	--	--	--	--	--	--
AUG 19...	--	--	--	--	--	--	--	--	--	--	--

08072000 LAKE HOUSTON NEAR SHELDON, TX

LOCATION.--Lat 29°54'58", long 95°08'28", Harris County, Hydrologic Unit 12040101, at intake structure on San Jacinto River near right bank 100 ft upstream from Lake Houston Dam, 4.0 mi north of Sheldon, 4.6 mi upstream from bridge on U.S. Highway 90, and 18 mi northeast of Houston.

DRAINAGE AREA.--2,828 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1954 to current year.

REVISED RECORDS.--WSP 1732: Drainage area.

GAGE.--Water-stage recorder. Datum of gage at dam is 0.70 ft below National Geodetic Vertical Datum of 1929; unadjusted for land-surface subsidence.

REMARKS.--The lake is formed by two earthfill embankment sections and a 3,160-foot-long concrete spillway midway between the embankment sections. The dam was completed and storage began Apr. 9, 1954. The spillway includes two tainter gates, 18.0 by 20.5 ft, that can be used for control of releases below gage heights of 44.5 ft and above 28.0 ft. In addition, there is a 36-inch-diameter sluice gate that is used for low-flow releases. Water is used for irrigation, municipal, and industrial supply in the Houston metropolitan area. Figures given herein represent total contents. Data regarding the dam and lake are given in the following table:

	Gage height (feet)	Capacity (acre-feet)
Top of dam	63.0	-
Design flood	57.0	-
Crest of spillway	44.5	146,700
Crest of tainter gates (sill)	28.0	22,800
Lowest gated outlet (invert)	22.0	6,180

COOPERATION.--The capacity table, furnished by the city of Houston, is based on a sedimentation study made in 1965. Records of diversions were furnished by the San Jacinto River Authority and the city of Houston.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 217,700 acre-ft Apr. 19, 1979 (gage height, 49.50 ft); minimum since first filling of lake in August 1954, 53,380 acre-ft Dec. 1, 1971 (gage height, 34.08 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 187,200 acre-ft Nov. 26 at 2400 hours (gage height, 47.52 ft); minimum, 132,600 acre-ft Oct. 14 (gage height, 43.30 ft).

Capacity table (gage height, in feet, and total contents, in acre-feet)

43.0	129,100	47.0	179,600
45.0	152,900	48.0	194,200

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137600	156800	163300	154000	151200	150200	147600	151500	162800	159500	144700	142400
2	137700	156400	161500	154100	151100	150200	147100	156000	160600	158000	144500	142400
3	137500	156000	159800	154000	143000	151800	146800	159200	159800	156700	144300	142800
4	137500	155800	158500	153800	167400	154500	146900	160500	159900	155500	143600	143200
5	136400	155300	157000	152700	165000	155500	146900	160500	159000	155100	143300	143500
6	136000	154900	156600	152900	168100	155400	146600	158500	158900	155000	143300	148200
7	135600	154200	156200	152800	167000	155300	146200	156600	161000	155100	142900	153100
8	135200	153700	155800	152000	163300	154900	146000	155700	169100	155000	142700	156200
9	134700	153500	155400	151500	161600	154500	145700	154900	172300	155100	142500	157700
10	134300	153200	155100	151600	160300	154600	146200	154800	178500	154800	142300	158400
11	133900	154800	165000	152100	159500	154800	146200	154500	177300	154500	142300	159400
12	133400	159800	171200	152600	158800	155700	146600	154900	175600	154000	141800	159200
13	133000	161200	171800	152700	157700	155700	146300	155300	171200	153700	141400	159200
14	133000	161100	170400	153100	157100	155400	146900	155100	168400	153600	141100	161100
15	134600	160800	168200	153200	156200	155000	146200	154600	165900	153200	141000	161200
16	135200	160500	166200	153700	155900	154600	145800	155700	163300	152700	140500	160600
17	135800	158400	163600	154100	155800	154000	145400	157600	164900	152300	140200	159700
18	137400	157100	161000	154600	155300	154200	144900	159700	164600	152000	140100	158900
19	139700	157000	159200	154900	155100	152500	145400	160800	164300	151500	139800	158600
20	144100	155300	158000	155300	155000	151400	146600	161600	164200	150900	139400	158900
21	146300	155900	157100	155700	154100	150600	147100	161900	163700	150500	139300	159700
22	149400	155400	156400	155100	152900	150200	146800	160500	162100	149900	139100	160100
23	151000	154900	155800	154500	152800	150100	146600	158000	159900	149400	140000	160500
24	151800	164700	154800	154200	153100	149900	146100	156200	158500	149000	140700	160100
25	152000	182500	154100	153800	152900	149500	145500	157900	157500	148900	140600	159400
26	151800	187200	154500	151700	152900	149400	145000	160100	156700	148300	140600	159000
27	151500	179600	154900	151000	152200	149000	144500	162800	156800	147800	140500	158400
28	152700	170600	154600	151000	150400	148700	146500	162400	157700	147300	141200	158400
29	154200	166300	154600	151400	---	148400	147100	162000	159400	146700	141600	158200
30	154500	164900	154500	151100	---	148300	147600	161500	160100	146100	141600	157900
31	155400	---	154100	151100	---	147800	---	163000	---	145500	141700	---
MAX	155400	187200	171800	155700	168100	155700	147600	163000	178500	159500	144700	161200
MIN	133000	153200	154100	151000	143000	147800	144500	151500	156700	145500	139100	142400
(†)	45.19	45.92	45.08	44.85	44.79	44.58	44.56	45.78	45.55	44.39	44.08	45.38
(‡)	+18900	+9500	-10800	-3000	-700	-2600	-200	+15400	-2900	-14600	-3800	+16200
(††)	20860	20200	20770	21110	19180	21470	21630	23180	15000	15430	15670	11280

CAL YR 1985 MAX 187200 MIN 123700 (‡) -4800 (††) 267870
WTR YR 1986 MAX 187200 MIN 133000 (‡) + 21400 (††) 225780

(†) Gage height, in feet, at end of month.
(‡) Change in contents, in acre-feet.
(††) Diversions, in acre-feet, for municipal and industrial use by city of Houston and San Jacinto River Authority.

08072000 LAKE HOUSTON NEAR SHELDON, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: December 1968 to current year. Biochemical analyses: August 1983 to current year. Pesticide analyses: May 1968 to August 1972.

295505095083101 - LAKE HOUSTON SITE AR

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
FEB											
06...	1517	1.00	150	7.80	17.0	0.3	8.7	90	0.30	0.7	0.18
06...	1519	10.0	150	7.80	17.0	--	8.7	90	--	--	--
06...	1521	17.0	150	8.00	17.0	--	8.6	89	0.30	0.9	0.21
MAY											
22...	1404	1.00	205	7.80	25.0	0.28	7.0	84	0.20	0.8	0.18
22...	1406	10.0	205	7.70	25.0	--	6.4	77	--	--	--
22...	1408	18.0	205	7.90	25.0	--	6.4	77	0.20	0.8	0.21
JUN											
16...	1244	1.00	90	6.60	29.0	0.24	4.5	--	<0.10	0.9	0.09
16...	1246	10.0	90	6.60	27.0	--	2.3	29	--	--	--
16...	1248	19.0	90	6.60	26.5	--	1.5	19	<0.10	1.0	0.14
19...	1046	1.00	105	7.00	29.5	0.34	6.2	--	<0.10	1.1	0.12
19...	1048	10.0	105	6.80	28.5	--	4.7	--	--	--	--
19...	1050	19.0	100	6.80	27.5	--	1.9	--	<0.10	0.9	0.15
25...	1156	1.00	115	7.30	31.0	0.30	6.6	--	<0.10	1.2	0.14
25...	1158	10.0	115	7.00	30.5	--	5.4	--	--	--	--
25...	1200	19.0	105	6.60	27.0	--	0	0	<0.10	1.1	0.40
AUG											
20...	1340	1.00	145	8.20	32.5	0.51	8.0	--	<0.10	0.7	0.12
20...	1342	10.0	145	7.10	31.0	--	5.8	--	--	--	--
20...	1344	16.0	140	7.00	30.5	--	2.1	--	<0.10	0.7	0.16

295516095080801 - LAKE HOUSTON SITE AC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)
FEB												
06...	1530	1.00	170	7.80	17.0	0.31	70	24	8.8	91	2.6	240
06...	1531	0.51	--	--	--	--	--	--	--	--	--	--
06...	1531	0.51	--	--	--	--	--	--	--	--	--	--
06...	1532	10.0	150	7.50	16.0	--	--	--	8.6	87	--	--
06...	1534	20.0	130	7.40	15.5	--	--	--	8.4	84	--	--
06...	1536	30.0	125	7.40	15.5	--	--	--	8.3	83	--	--
06...	1538	45.0	125	7.50	15.0	--	70	43	8.2	81	2.0	--
MAY												
22...	1414	1.00	205	7.80	25.0	0.29	--	--	7.5	91	--	--
22...	1415	0.48	--	--	--	--	--	--	--	--	--	--
22...	1415	0.48	--	--	--	--	--	--	--	--	--	--
22...	1416	10.0	205	7.40	24.5	--	--	--	6.0	72	--	--
22...	1418	20.0	205	7.30	24.5	--	--	--	5.4	65	--	--
22...	1420	30.0	200	7.30	24.0	--	--	--	5.3	63	--	--
22...	1422	40.0	200	7.50	24.5	--	--	--	5.3	63	--	--
22...	1424	48.0	200	7.50	24.5	--	--	--	5.3	63	--	--
JUN												
16...	1254	1.00	90	6.60	29.5	0.25	--	--	5.0	--	--	--
16...	1255	0.41	--	--	--	--	--	--	--	--	--	--
16...	1255	0.41	--	--	--	--	--	--	--	--	--	--
16...	1256	10.0	90	6.50	27.0	--	--	--	2.8	35	--	--
16...	1258	20.0	80	6.40	26.5	--	--	--	1.1	14	--	--
16...	1300	30.0	85	6.50	26.0	--	--	--	0.9	11	--	--
16...	1302	40.0	115	6.60	26.0	--	--	--	0	0	--	--
16...	1304	48.0	100	6.80	25.5	--	--	--	0	0	--	--
19...	1058	1.00	100	7.10	30.5	0.29	--	--	7.6	--	--	--
19...	1059	0.48	--	--	--	--	--	--	--	--	--	--
19...	1100	10.0	100	6.60	28.0	--	--	--	3.7	--	--	--
19...	1102	20.0	95	6.50	27.0	--	--	--	1.4	17	--	--
19...	1104	30.0	95	6.50	26.5	--	--	--	0	0	--	--
19...	1106	40.0	100	6.50	26.0	--	--	--	0	0	--	--
19...	1108	48.0	110	6.60	26.0	--	--	--	0	0	--	--
25...	1204	1.00	110	7.20	31.0	0.43	--	--	6.6	--	--	--
25...	1205	0.7	--	--	--	--	--	--	--	--	--	--
25...	1206	10.0	110	6.80	30.0	--	--	--	5.3	--	--	--
25...	1208	20.0	100	6.50	29.5	--	--	--	0	0	--	--
25...	1210	30.0	100	6.50	29.5	--	--	--	0	0	--	--
25...	1213	40.0	105	6.50	29.0	--	--	--	0	0	--	--
25...	1216	48.0	110	6.60	28.0	--	--	--	0	0	--	--

LAKE HOUSTON NEAR SHELDON, TX--Continued

295516095080801 - LAKE HOUSTON SITE AC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB												
06...	130	46	10	15	2.1	17	1	2.2	36	12	25	<0.1
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	37	7	12	1.8	11	0.8	2.1	30	11	19	0.1
MAY												
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L)
FEB												
06...	9.2	100	6	5	0.30	0.30	0.6	0.8	0.19	0.146	6.3	--
06...	--	--	--	--	--	--	--	--	--	--	-	6.40
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	8.2	83	26	10	0.30	0.31	0.5	0.8	0.27	0.085	--	--
MAY												
22...	--	--	--	--	0.20	0.18	0.5	0.8	0.167	0.07	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	16.0
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	-	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	0.20	0.30	0.5	0.9	--	0.081	--	--
JUN												
16...	--	--	--	--	<0.10	<0.10	0.9	0.9	0.11	0.062	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	16.0
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	<0.10	--	--	1.0	0.13	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	<0.10	<0.10	1.2	1.3	0.38	0.32	--	--
19...	--	--	--	--	<0.10	<0.10	0.6	1.3	0.134	0.054	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	24.0
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	<0.10	--	--	0.9	0.12	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	<0.10	<0.10	0.8	1.0	--	0.141	--	--
25...	--	--	--	--	<0.10	<0.10	0.7	1.1	0.121	0.034	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	38.0
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	<0.10	--	--	1.0	0.23	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	<0.10	<0.10	1.2	1.4	0.60	0.46	--	--

295516095080801 - LAKE HOUSTON SITE AC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)
FEB												
06...	--	1	55	<1	<10	5	240	<1	12	0.1	<1	<1
06...	0.20	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	1	61	<1	<10	11	130	<1	58	0.3	<1	<1
MAY												
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	0.40	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	1.70	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	3.40	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	4.00	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	ZINC, DIS-SOLVED (UG/L AS ZN)	AME-TRYNE TOTAL	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	METHO-MYL TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	PROPHAM TOTAL (UG/L)	SEVIN, TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)
FEB												
06...	5	<0.1	<0.1	<0.1	<2.0	<0.1	<0.1	<0.1	<2.0	<2.0	<0.1	<0.1
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	--
06...	10	--	--	--	--	--	--	--	--	--	--	--
MAY												
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--

LAKE HOUSTON NEAR SHELDON, TX--Continued

295516095080801 - LAKE HOUSTON SITE AC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG												
20...	1352	1.00	140	8.30	33.0	0.48	50	7.9	7.6	2.9	K1	K1
20...	1353	0.78	--	--	--	--	--	--	--	--	--	--
20...	1354	10.0	140	7.00	31.0	--	--	--	6.0	--	--	--
20...	1356	20.0	135	6.60	29.5	--	--	--	1.0	--	--	--
20...	1358	30.0	135	6.60	29.0	--	--	--	0.4	--	--	--
20...	1400	40.0	135	6.70	29.0	--	--	--	0.3	--	--	--
20...	1402	49.0	140	7.00	29.0	--	100	15	0	1.8	--	--

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
AUG												
20...	40	1	13	1.8	9.8	0.7	2.6	39	10	15	0.1	6.3
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	46	2	15	2.0	9.3	0.6	2.5	44	11	11	0.1	8.0

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L)
AUG												
20...	82	13	11	<0.10	<0.10	0.6	0.8	0.117	0.051	13	--	--
20...	--	--	--	--	--	--	--	--	--	--	18.0	1.40
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	<0.10	--	--	0.7	0.15	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	<0.10	--	--	0.8	0.16	--	--	--	--
20...	87	17	10	<0.10	<0.10	1.0	1.0	0.174	0.088	13	--	--

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
AUG												
20...	2	55	1	<10	2	45	<5	49	<0.1	<1	<1	7
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	180	--	330	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	170	--	770	--	--	--	--
20...	4	77	2	<10	12	240	<5	940	<0.1	<1	<1	14

LAKE HOUSTON NEAR SHELDON, TX--Continued

295527095074501 - LAKE HOUSTON SITE AL

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
FEB											
06...	1600	1.00	160	7.60	16.5	0.3	8.7	89	0.30	0.8	0.17
06...	1602	10.0	145	7.40	16.0	--	8.5	86	--	--	--
06...	1604	20.0	135	7.40	16.0	--	8.4	85	--	--	--
06...	1606	29.0	125	7.40	15.0	--	7.3	72	0.30	1.3	0.32
MAY											
22...	1438	1.00	200	7.80	25.0	0.31	7.5	91	0.20	0.7	0.17
22...	1440	10.0	200	7.50	25.0	--	6.0	72	--	--	--
22...	1442	20.0	200	7.50	24.5	--	6.0	72	--	--	--
22...	1444	30.0	200	7.60	25.0	--	6.0	72	0.20	0.8	0.21
JUN											
16...	1316	1.00	100	6.90	28.0	0.24	6.9	--	<0.10	1.1	0.10
16...	1318	10.0	95	6.60	28.0	--	4.7	--	--	--	--
16...	1320	20.0	100	6.50	26.0	--	0.5	6	--	--	--
16...	1322	28.0	110	6.50	26.0	--	0	0	<0.10	0.9	0.17
19...	1118	1.00	95	7.00	30.0	0.3	7.1	--	<0.10	1.1	0.11
19...	1120	10.0	95	6.60	28.0	--	4.0	--	--	--	--
19...	1122	20.0	95	6.50	26.5	--	0.7	9	--	--	--
19...	1124	27.0	95	6.60	26.5	--	0	0	<0.10	1.0	0.17
25...	1234	1.00	105	7.10	31.0	0.43	6.3	--	<0.10	0.9	0.11
25...	1236	10.0	105	6.80	30.0	--	4.5	--	--	--	--
25...	1238	20.0	100	6.50	27.0	--	0	0	--	--	--
25...	1240	29.0	106	6.60	26.5	--	0	0	<0.10	1.1	0.32
AUG											
20...	1426	1.00	140	8.20	32.0	0.43	7.7	--	<0.10	0.8	0.13
20...	1428	10.0	140	7.20	31.0	--	6.3	--	--	--	--
20...	1430	23.0	135	7.10	29.5	--	0.5	--	<0.10	0.7	0.19

295708095092901 - LAKE HOUSTON SITE BR

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
FEB								
06...	1500	1.00	190	8.20	18.0	0.24	9.4	99
06...	1502	11.0	170	7.80	16.5	--	8.0	82
MAY								
22...	1348	1.00	225	8.40	25.5	0.2	7.6	93
22...	1350	13.0	225	8.30	25.5	--	7.4	90
JUN								
16...	1230	1.00	95	6.80	29.0	0.21	5.9	--
16...	1232	12.0	100	6.80	28.0	--	4.1	--
19...	1032	1.00	130	7.00	29.5	0.28	6.0	--
19...	1034	13.0	120	6.80	28.0	--	3.3	--
25...	1148	1.00	120	7.00	30.5	0.3	6.4	--
25...	1150	13.0	90	6.50	27.5	--	0	--
AUG								
20...	1328	1.00	150	7.70	32.0	0.33	6.8	--
20...	1330	11.0	140	7.10	30.0	--	1.5	20

LAKE HOUSTON NEAR SHELDON, TX--Continued

295702095091401 - LAKE HOUSTON SITE BC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
FEB								
06...	1445	1.00	190	7.90	17.5	0.28	9.0	94
06...	1447	10.0	190	7.50	17.0	--	8.3	86
06...	1449	20.0	135	7.30	15.0	--	7.7	76
06...	1451	30.0	135	7.30	14.5	--	7.4	72
06...	1453	42.0	140	7.30	13.5	--	5.7	54
MAY								
22...	1336	1.00	230	8.10	25.5	0.24	7.3	89
22...	1338	10.0	230	8.00	25.0	--	7.2	87
22...	1340	20.0	230	7.80	25.0	--	6.6	80
22...	1342	30.0	225	7.70	25.0	--	6.3	76
22...	1344	39.0	225	7.70	25.0	--	5.8	70
JUN								
16...	1214	1.00	100	6.80	29.0	0.19	6.1	--
16...	1216	10.0	100	6.60	27.5	--	3.4	--
16...	1218	20.0	90	6.50	27.0	--	2.4	30
16...	1220	30.0	85	6.40	26.5	--	1.1	14
16...	1222	40.0	85	6.40	26.0	--	0	0
19...	1020	1.00	125	7.00	29.0	0.33	6.2	--
19...	1022	10.0	130	6.80	28.0	--	4.4	--
19...	1024	20.0	100	6.50	27.0	--	1.4	17
19...	1026	30.0	85	6.40	26.5	--	0	0
19...	1028	40.0	85	6.40	26.5	--	0	0
25...	1125	1.00	120	6.90	30.5	0.3	5.8	--
25...	1128	10.0	100	6.40	27.5	--	0	--
25...	1130	20.0	85	6.40	27.0	--	0	0
25...	1133	30.0	85	6.40	26.5	--	0	0
25...	1135	41.0	105	6.60	26.5	--	0	0
AUG								
20...	1312	1.00	150	7.80	32.0	0.37	7.2	--
20...	1314	10.0	140	6.80	30.0	--	2.7	--
20...	1316	20.0	140	6.70	29.5	--	1.4	--
20...	1318	30.0	140	6.80	29.0	--	1.3	--
20...	1320	39.0	195	6.90	28.5	--	0	--

295656095090201 - LAKE HOUSTON SITE BL

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
FEB								
06...	1430	1.00	190	7.80	17.5	0.29	8.8	92
06...	1432	10.0	190	7.60	17.0	--	8.5	88
06...	1434	20.0	165	7.40	16.0	--	8.0	81
06...	1436	30.0	135	7.30	14.5	--	7.3	71
06...	1438	41.0	125	7.30	14.0	--	6.8	66
MAY								
22...	1332	1.00	215	8.00	25.0	0.18	7.0	84
22...	1334	10.0	220	7.80	25.0	--	6.3	76
22...	1336	20.0	230	7.70	24.5	--	6.2	74
22...	1338	30.0	235	7.60	24.0	--	5.6	66
22...	1340	38.0	235	7.70	24.0	--	5.4	64
JUN								
16...	1200	1.00	100	6.80	29.0	0.19	5.9	--
16...	1202	10.0	95	6.60	27.5	--	3.5	--
16...	1204	20.0	90	6.50	27.0	--	2.5	31
16...	1206	30.0	80	6.50	26.5	--	2.0	25
16...	1208	42.0	75	6.50	26.5	--	1.1	14
19...	1004	1.00	115	7.00	29.0	0.31	6.3	--
19...	1006	10.0	125	6.70	28.0	--	4.2	--
19...	1008	20.0	90	6.40	27.0	--	1.0	12
19...	1010	30.0	85	6.40	26.0	--	0	0
19...	1012	42.0	85	6.50	26.0	--	0	0
25...	1110	1.00	120	6.90	30.0	0.32	5.8	--
25...	1113	10.0	105	6.50	28.5	--	1.9	--
25...	1115	20.0	85	6.40	26.5	--	0	0
25...	1118	30.0	95	6.50	26.5	--	0	0
25...	1120	42.0	105	6.60	26.5	--	0	0
AUG								
20...	1256	1.00	140	7.80	32.0	0.44	7.2	--
20...	1258	10.0	135	6.80	30.0	--	3.9	--
20...	1300	20.0	135	6.70	29.5	--	2.1	--
20...	1302	30.0	135	6.70	29.0	--	1.4	--
20...	1304	39.0	135	6.80	29.0	--	1.0	--

LAKE HOUSTON NEAR SHELDON, TX--Continued

295902095075301 - LAKE HOUSTON SITE CR

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
FEB											
06...	1320	1.00	190	7.30	18.0	0.15	7.8	82	0.40	0.5	0.31
06...	1322	10.0	130	7.40	17.5	--	7.5	78	--	--	--
06...	1324	15.0	115	7.30	17.5	--	6.9	72	0.20	1.2	0.19
MAY											
22...	1216	1.00	225	8.40	25.5	0.19	8.0	97	<0.10	0.9	0.20
22...	1218	15.0	225	8.10	25.0	--	7.4	89	<0.10	1.0	0.23
JUN											
16...	1104	1.00	115	6.90	28.5	0.17	5.5	--	<0.10	1.0	0.13
16...	1106	10.0	135	6.80	27.5	--	3.9	--	--	--	--
16...	1108	17.0	90	6.60	27.0	--	2.5	31	<0.10	0.9	0.14
19...	0926	1.00	140	7.10	29.0	0.25	7.3	--	<0.10	1.4	0.19
19...	0928	10.0	115	6.60	27.5	--	2.8	--	--	--	--
19...	0930	17.0	90	6.60	27.0	--	2.2	27	<0.10	1.0	0.13
25...	1030	1.00	110	6.80	30.0	0.26	4.6	--	<0.10	1.0	0.16
25...	1033	10.0	110	6.60	29.0	--	2.4	--	--	--	--
25...	1035	16.0	85	6.40	27.0	--	0.2	2	<0.10	1.1	0.24
AUG											
20...	1212	1.00	165	7.10	30.5	0.33	5.6	--	<0.10	0.8	0.14
20...	1214	15.0	155	6.90	30.0	--	1.6	--	<0.10	0.8	0.18

295902095074201 - LAKE HOUSTON SITE CC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS (MG/L AS CACO3)
FEB												
06...	1334	1.00	100	6.80	18.0	0.15	100	52	6.8	72	2.9	26
06...	1335	0.24	--	--	--	--	--	--	--	--	--	--
06...	1335	0.24	--	--	--	--	--	--	--	--	--	--
06...	1336	10.0	100	7.00	17.5	--	--	--	7.0	73	--	--
06...	1338	20.0	125	7.10	17.0	--	--	--	6.9	71	--	--
06...	1340	30.0	150	7.20	17.0	--	80	40	7.2	74	2.7	38
MAY												
22...	1220	1.00	230	8.30	25.0	0.18	--	--	7.8	94	--	--
22...	1221	0.3	--	--	--	--	--	--	--	--	--	--
22...	1221	0.3	--	--	--	--	--	--	--	--	--	--
22...	1222	10.0	225	8.00	24.5	--	--	--	7.1	85	--	--
22...	1224	20.0	215	7.60	24.0	--	--	--	6.2	73	--	--
22...	1226	30.0	200	7.60	24.0	--	--	--	5.8	69	--	--
JUN												
16...	1118	1.00	115	6.90	29.0	0.2	--	--	5.8	--	--	--
16...	1119	0.33	--	--	--	--	--	--	--	--	--	--
16...	1119	0.33	--	--	--	--	--	--	--	--	--	--
16...	1120	10.0	140	6.80	27.5	--	--	--	4.1	--	--	--
16...	1122	20.0	70	6.40	26.5	--	--	--	2.6	32	--	--
16...	1124	31.0	70	6.50	26.5	--	--	--	2.0	25	--	--
19...	0936	1.00	130	6.90	28.5	0.28	--	--	5.4	--	--	--
19...	0937	0.46	--	--	--	--	--	--	--	--	--	--
19...	0938	10.0	90	6.50	27.0	--	--	--	3.1	39	--	--
19...	0940	20.0	70	6.40	26.5	--	--	--	3.0	37	--	--
19...	0942	31.0	60	6.30	26.0	--	--	--	3.0	37	--	--
25...	1038	1.00	110	6.80	30.0	0.28	--	--	4.6	--	--	--
25...	1039	0.46	--	--	--	--	--	--	--	--	--	--
25...	1040	10.0	110	6.40	28.0	--	--	--	1.1	--	--	--
25...	1043	20.0	85	6.30	27.0	--	--	--	0.2	2	--	--
25...	1045	31.0	75	6.30	26.5	--	--	--	0.2	2	--	--
AUG												
20...	1220	1.00	160	7.30	31.0	0.34	80	14	--	--	2.7	46
20...	1221	0.56	--	--	--	--	--	--	--	--	--	--
20...	1222	10.0	150	6.80	30.0	--	--	--	3.3	--	--	--
20...	1224	20.0	150	6.80	30.0	--	--	--	2.2	--	--	--
20...	1226	29.0	150	6.80	29.5	--	80	19	--	--	2.0	43

LAKE HOUSTON NEAR SHELDON, TX--Continued

295902095074201 - LAKE HOUSTON SITE CC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
FEB											
06...	8	8.1	1.3	9.7	0.9	1.7	18	11	15	<0.1	5.6
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	8	12	2.0	18	1	2.3	30	10	23	0.1	8.1
MAY											
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
JUN											
16...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
AUG											
20...	5	15	2.0	14	0.9	2.7	41	10	18	0.1	6.8
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	5	14	2.0	11	0.8	2.5	38	11	16	0.2	6.7

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB											
06...	63	36	8	0.10	0.8	0.11	14	--	--	190	59
06...	--	--	--	--	--	--	--	2.70	0.20	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	94	26	2	0.20	0.8	0.16	11	--	--	310	37
MAY											
22...	--	--	--	<0.10	0.9	0.21	--	--	--	--	--
22...	--	--	--	--	--	--	--	39.0	2.30	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	0.10	0.9	0.20	--	--	--	--	--
JUN											
16...	--	--	--	<0.10	1.1	0.13	--	--	--	--	--
16...	--	--	--	--	--	--	--	35.0	3.60	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	<0.10	1.1	0.12	--	--	--	--	--
19...	--	--	--	<0.10	1.0	0.15	--	--	--	--	--
19...	--	--	--	--	--	--	--	36.0	5.90	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	0.10	1.0	0.07	--	--	--	--	--
25...	--	--	--	<0.10	1.0	0.14	--	--	--	--	--
25...	--	--	--	--	--	--	--	4.30	0.50	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	<0.10	1.2	0.19	--	--	--	--	--
AUG											
20...	93	17	15	<0.10	0.8	0.14	13	--	--	210	35
20...	--	--	--	--	--	--	--	17.0	1.40	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	86	23	10	<0.10	1.0	0.18	13	--	--	--	--

295902095073001 - LAKE HOUSTON SITE CL

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
FEB											
06...	1355	1.00	100	6.90	18.0	0.16	7.0	74	--	--	--
06...	1357	10.0	120	6.90	17.5	--	7.0	73	--	--	--
06...	1359	14.0	145	7.00	17.5	--	7.5	78	--	--	--
MAY											
22...	1240	1.00	225	8.10	25.0	0.22	7.7	93	<0.10	0.8	0.21
22...	1242	13.0	225	7.80	25.0	--	6.9	83	<0.10	1.3	0.43
JUN											
16...	1134	1.00	120	6.90	29.0	0.21	5.4	--	<0.10	1.0	0.14
16...	1136	15.0	75	6.60	27.0	--	2.1	26	<0.10	1.1	0.14
19...	0950	1.00	130	6.90	28.0	0.28	5.9	--	<0.10	1.1	0.17
19...	0952	15.0	95	6.60	27.0	--	1.8	22	<0.10	1.0	0.13
25...	1058	1.00	115	6.80	30.0	0.27	4.5	--	<0.10	1.0	0.16
25...	1100	15.0	85	6.40	27.5	--	0.1	--	<0.10	1.1	0.28
AUG											
20...	1238	1.00	155	7.20	31.0	0.32	6.3	--	<0.10	0.7	0.15
20...	1240	12.0	150	7.10	30.0	--	3.5	--	<0.10	0.6	0.16

300016095075601 - LAKE HOUSTON SITE DR

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB								
06...	1240	1.00	150	7.20	18.0	0.12	7.0	74
06...	1242	10.0	150	7.20	18.0	--	7.1	75
06...	1244	19.0	155	7.30	18.0	--	7.3	77
MAY								
22...	1200	1.00	235	8.30	25.0	0.23	8.3	100
22...	1202	10.0	235	8.30	25.0	--	8.3	100
22...	1204	21.0	235	8.20	25.0	--	8.3	100
JUN								
16...	1020	1.00	170	7.00	28.5	0.22	5.5	--
16...	1022	10.0	140	6.80	28.0	--	4.1	--
16...	1024	15.0	105	6.60	27.0	--	2.9	36
16...	1026	23.0	75	6.60	26.0	--	0.3	4
19...	0846	1.00	115	6.80	27.5	0.22	4.7	--
19...	0848	10.0	95	6.70	27.0	--	3.2	40
19...	0850	24.0	75	6.70	26.5	--	2.8	35
25...	0950	1.00	110	6.60	29.0	0.21	3.6	--
25...	0953	10.0	90	6.50	28.0	--	1.5	--
25...	0955	22.0	80	6.60	27.0	--	0.3	4
AUG								
20...	1116	1.00	185	7.20	30.5	0.32	5.2	--
20...	1118	10.0	165	6.90	30.0	--	1.9	--
20...	1120	20.0	175	7.00	30.0	--	0.5	--

LAKE HOUSTON NEAR SHELDON, TX--Continued

300016095073401 - LAKE HOUSTON SITE DC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
FEB								
06...	1250	1.00	130	7.10	18.0	0.12	6.5	68
06...	1252	10.0	140	7.10	18.0	--	6.5	68
06...	1254	20.0	145	7.10	18.0	--	6.7	70
06...	1256	28.0	160	7.10	17.5	--	5.8	60
MAY								
22...	1121	1.00	235	8.20	24.5	0.21	8.2	98
22...	1123	10.0	235	8.10	24.5	--	7.8	93
22...	1125	20.0	235	8.00	24.0	--	7.7	91
22...	1127	27.0	230	7.80	24.0	--	7.0	83
JUN								
16...	1034	1.00	145	7.00	28.5	0.21	5.5	--
16...	1036	10.0	100	6.70	27.5	--	4.2	--
16...	1038	15.0	75	6.50	27.0	--	3.5	44
16...	1040	20.0	75	6.50	26.5	--	3.1	38
16...	1042	27.0	70	6.50	26.5	--	2.8	35
19...	0858	1.00	105	6.60	28.0	0.25	5.2	--
19...	0900	10.0	65	6.30	26.5	--	3.3	41
19...	0902	20.0	60	6.30	26.0	--	3.3	41
19...	0904	26.0	60	6.40	25.5	--	3.1	38
25...	1001	1.00	95	6.60	29.0	0.3	4.2	--
25...	1003	10.0	90	6.40	28.0	--	1.5	--
25...	1005	24.0	75	6.40	26.5	--	0.4	5
AUG								
20...	1128	1.00	175	7.10	31.0	0.34	5.8	--
20...	1130	10.0	165	6.80	30.0	--	2.2	--
20...	1132	20.0	170	6.80	29.5	--	1.5	--
20...	1134	25.0	175	6.80	29.5	--	1.2	--

300016095072301 - LAKE HOUSTON SITE DL

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
FEB								
06...	1300	1.00	120	7.00	18.0	0.12	6.6	69
06...	1302	10.0	120	7.10	17.5	--	6.5	68
06...	1304	20.0	160	7.20	17.5	--	6.9	72
06...	1306	30.0	170	7.10	17.0	--	6.0	62
MAY								
22...	1140	1.00	220	7.80	24.5	0.19	7.2	86
22...	1142	10.0	220	7.70	24.5	--	6.9	83
22...	1144	20.0	205	7.60	24.5	--	6.6	79
22...	1146	27.0	180	7.90	24.0	--	6.3	75
JUN								
16...	1048	1.00	80	6.60	28.0	0.22	5.0	--
16...	1050	10.0	75	6.50	27.0	--	4.0	50
16...	1052	20.0	70	6.50	26.5	--	3.1	38
16...	1054	28.0	65	6.50	26.5	--	2.1	26
19...	0910	1.00	90	6.60	28.0	0.28	5.3	--
19...	0912	10.0	65	6.30	26.5	--	3.7	46
19...	0914	20.0	55	6.30	25.5	--	3.5	43
19...	0916	30.0	55	6.30	25.5	--	3.3	40
25...	1008	1.00	90	6.60	29.5	0.32	4.4	--
25...	1010	10.0	90	6.40	28.0	--	2.4	--
25...	1013	20.0	75	6.30	27.0	--	0.2	2
25...	1015	31.0	75	6.30	26.5	--	0	0
AUG								
20...	1140	1.00	175	7.40	31.0	0.32	6.4	--
20...	1142	10.0	165	6.80	30.0	--	3.0	--
20...	1144	20.0	175	6.70	29.5	--	1.2	--
20...	1146	29.0	180	6.80	29.5	--	0	--

LAKE HOUSTON NEAR SHELDON, TX--Continued

300202095075701 - LAKE HOUSTON SITE ER

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN,, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
FEB											
06...	0935	1.00	50	6.40	17.0	0.11	6.8	70	<0.10	0.9	0.07
06...	0937	13.0	50	6.60	17.0	--	6.7	69	<0.10	1.0	0.07
MAY											
22...	1009	1.00	165	7.50	24.5	0.2	7.5	90	<0.10	0.9	0.12
22...	1011	5.00	165	7.40	24.5	--	7.0	84	--	--	--
22...	1013	13.0	165	7.40	24.5	--	6.7	80	<0.10	0.8	0.12
JUN											
16...	0930	1.00	80	6.60	27.5	0.26	4.7	--	<0.10	1.0	0.06
16...	0932	12.0	80	6.60	27.0	--	3.6	45	<0.10	1.0	0.09
19...	0804	1.00	55	6.30	26.0	0.16	4.4	54	0.10	0.9	0.06
19...	0806	12.0	55	6.40	25.5	--	4.8	58	0.10	0.9	0.06
25...	0803	1.00	65	6.40	29.0	0.28	4.6	--	<0.10	1.2	0.08
25...	0805	12.0	75	6.40	27.5	--	1.8	--	<0.10	1.1	0.13
AUG											
20...	0958	1.00	180	7.00	30.5	0.29	5.2	--	<0.10	0.7	0.14
20...	1000	12.0	185	6.70	29.5	--	0	--	<0.10	0.8	0.24

300158095074601 - LAKE HOUSTON SITE EC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
FEB										
06...	0942	1.00	50	6.30	16.5	0.1	140	67	7.1	72
06...	0943	0.16	--	--	--	--	--	--	--	--
06...	0943	--	--	--	--	--	--	--	--	--
06...	0944	10.0	50	6.30	16.5	--	--	--	7.0	71
06...	0946	22.0	50	6.40	16.5	--	140	73	7.0	71
MAY										
22...	0954	1.00	160	6.00	24.0	0.21	--	--	4.8	57
22...	0955	0.34	--	--	--	--	--	--	--	--
22...	0955	0.34	--	--	--	--	--	--	--	--
22...	0956	10.0	150	6.10	23.5	--	--	--	1.3	15
22...	0958	22.0	120	6.30	23.0	--	--	--	1.2	14
JUN										
16...	0916	1.00	80	6.60	27.5	0.27	--	--	5.0	--
16...	0917	0.44	--	--	--	--	--	--	--	--
16...	0917	0.44	--	--	--	--	--	--	--	--
16...	0918	10.0	80	6.50	27.0	--	--	--	4.2	52
16...	0920	15.0	80	6.50	27.0	--	--	--	4.1	51
16...	0922	23.0	80	6.50	27.0	--	--	--	3.9	49
19...	0750	1.00	55	6.40	25.5	0.17	--	--	5.1	62
19...	0751	0.28	--	--	--	--	--	--	--	--
19...	0752	10.0	55	6.40	25.5	--	--	--	5.3	65
19...	0754	23.0	55	6.40	25.5	--	--	--	5.4	66
25...	0844	1.00	65	6.40	29.0	0.29	--	--	4.1	--
25...	0846	0.48	--	--	--	--	--	--	--	--
25...	0848	10.0	75	6.40	27.5	--	--	--	2.6	--
25...	0850	22.0	90	6.40	27.5	--	--	--	3.3	--
AUG										
20...	0932	1.00	175	7.20	30.5	0.28	90	17	5.2	--
20...	0933	0.46	--	--	--	--	--	--	--	--
20...	0934	10.0	180	6.70	29.5	--	--	--	2.0	--
20...	0936	21.0	185	6.70	29.5	--	80	26	0.7	--

LAKE HOUSTON NEAR SHELDON, TX--Continued

300158095074601 - LAKE HOUSTON SITE EC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
FEB										
06...	3.9	2800	4200	14	7	4.1	0.8	4.8	0.6	1.5
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	3.9	--	--	15	7	4.5	1.0	5.0	0.6	1.6
MAY										
22...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
JUN										
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
AUG										
20...	2.3	K1	K8	43	4	14	2.0	16	1	2.5
20...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
20...	2.0	--	--	47	4	15	2.2	17	1	2.6

DATE	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
FEB										
06...	7	8.0	7.6	<0.1	14	46	80	2	<0.10	0.36
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	8	10	7.6	<0.1	5.2	40	94	12	<0.10	<0.10
MAY										
22...	--	--	--	--	--	--	--	--	<0.10	0.10
22...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	<0.10	<0.10
JUN										
16...	--	--	--	--	--	--	--	--	<0.10	<0.10
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	<0.10	<0.10
19...	--	--	--	--	--	--	--	--	0.10	<0.10
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	0.20	<0.10
25...	--	--	--	--	--	--	--	--	<0.10	<0.10
25...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	<0.10	<0.10
AUG										
20...	39	8.9	23	0.1	7.9	98	25	10	<0.10	<0.10
20...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
20...	43	9.6	24	0.2	7.9	100	36	17	<0.10	<0.10

LAKE HOUSTON NEAR SHELDON, TX--Continued

300158095074601 - LAKE HOUSTON SITE EC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)
FEB										
06...	0.6	0.9	--	0.039	19	--	--	<1	130	<1
06...	--	--	--	--	--	0.70	<0.10	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	0.8	1.2	0.119	0.035	21	--	--	<1	<2	<1
MAY										
22...	0.5	0.9	0.105	0.056	--	--	--	--	--	--
22...	--	--	--	--	--	34.0	2.00	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
22...	1.2	0.9	0.102	0.046	--	--	--	--	--	--
JUN										
16...	1.0	1.0	0.073	0.053	--	--	--	--	--	--
16...	--	--	--	--	--	7.00	0.50	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	3.0	1.1	0.081	0.135	--	--	--	--	--	--
19...	1.1	1.0	0.068	0.036	--	--	--	--	--	--
19...	--	--	--	--	--	0.80	0.10	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	0.7	1.0	0.037	0.017	--	--	--	--	--	--
25...	0.8	1.1	0.07	0.033	--	--	--	--	--	--
25...	--	--	--	--	--	8.80	1.00	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
25...	1.3	1.1	0.096	0.104	--	--	--	--	--	--
AUG										
20...	0.7	0.8	0.124	0.044	11	--	--	2	62	<1
20...	--	--	--	--	--	20.0	1.50	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
20...	1.0	1.0	0.174	0.106	11	--	--	--	--	--

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)
FEB									
06...	<10	3	300	2	410	<0.1	<1	<1	35
06...	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--
06...	<10	9	550	<1	99	0.1	<1	<1	15
MAY									
22...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
JUN									
16...	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--
AUG									
20...	<10	4	22	17	4	<0.1	<1	<1	11
20...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--

LAKE HOUSTON NEAR SHELDON, TX--Continued

300156095074001 - LAKE HOUSTON SITE EL

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
FEB											
06...	1014	1.00	50	6.30	16.5	0.15	7.1	73	<0.10	0.9	0.06
06...	1016	14.0	50	6.30	16.5	--	7.1	73	<0.10	0.9	0.06
MAY											
22...	0942	1.00	150	7.30	24.0	0.18	6.8	81	<0.10	0.8	0.11
22...	0944	10.0	150	7.30	24.0	--	6.6	78	--	--	--
22...	0946	15.0	155	7.30	24.0	--	6.6	78	<0.10	0.8	0.11
JUN											
16...	0906	1.00	75	6.40	27.5	0.27	4.6	--	<0.10	1.0	0.07
16...	0908	10.0	75	6.40	27.0	--	4.4	55	--	--	--
16...	0910	15.0	75	6.20	27.0	--	3.5	44	<0.10	1.2	0.07
19...	0742	1.00	50	6.50	25.5	0.16	5.3	65	<0.10	1.0	0.06
19...	0744	10.0	50	6.50	25.5	--	5.3	65	--	--	--
19...	0746	16.0	55	6.70	25.0	--	4.8	58	0.10	1.0	0.09
25...	0836	1.00	75	6.30	29.0	0.29	4.0	--	<0.10	1.1	0.07
25...	0838	10.0	75	6.20	27.5	--	3.6	--	--	--	--
25...	0840	16.0	75	6.10	27.5	--	4.0	--	<0.10	1.3	0.17
AUG											
20...	0920	1.00	175	6.90	30.0	0.25	4.9	--	<0.10	0.7	0.13
20...	0922	10.0	175	6.90	29.5	--	2.1	--	--	--	--
20...	0924	15.0	190	7.00	29.5	--	0	--	<0.10	0.8	0.26

300202095091701 - LAKE HOUSTON SITE FR

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
FEB											
06...	1035	1.00	185	7.00	17.0	0.12	7.0	72	0.40	1.1	0.29
06...	1037	12.0	185	7.00	17.0	--	7.0	72	0.40	1.0	0.27
MAY											
22...	1040	1.00	210	7.50	24.5	0.16	7.0	84	0.10	0.9	0.20
22...	1042	5.00	210	7.50	24.5	--	7.0	84	--	--	--
22...	1044	12.0	210	7.50	24.5	--	6.9	83	0.10	0.9	0.22
JUN											
16...	0948	1.00	190	7.10	28.0	0.18	5.3	--	0.10	0.9	0.20
16...	0950	11.0	190	7.10	28.0	--	5.2	--	0.10	0.9	0.23
19...	0812	1.00	165	7.00	28.5	0.13	5.7	--	0.20	1.1	0.30
19...	0814	11.0	165	6.60	27.5	--	3.6	--	0.30	1.1	0.27
25...	0918	1.00	180	7.10	30.5	0.14	6.2	--	<0.10	1.0	0.30
25...	0920	11.0	175	6.60	29.5	--	2.0	--	0.10	1.4	0.37
AUG											
20...	1018	1.00	380	8.10	31.5	0.17	6.0	--	<0.10	1.1	0.68
20...	1020	9.00	365	7.10	31.0	--	0.7	--	<0.10	1.6	0.77

LAKE HOUSTON NEAR SHELDON, TX--Continued

300209095091201 - LAKE HOUSTON SITE FC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB										
06...	1044	1.00	185	7.10	17.0	0.12	140	98	7.5	77
06...	1045	0.2	--	--	--	--	--	--	--	--
06...	1045	0.2	--	--	--	--	--	--	--	--
06...	1046	15.0	185	7.10	17.0	--	140	100	7.5	77
MAY										
22...	1050	1.00	220	7.80	25.0	0.1	--	--	7.7	93
22...	1051	0.16	--	--	--	--	--	--	--	--
22...	1051	0.16	--	--	--	--	--	--	--	--
22...	1052	10.0	220	7.70	24.5	--	--	--	7.4	88
22...	1054	15.0	210	7.50	24.5	--	--	--	6.7	80
JUN										
16...	0956	1.00	190	7.20	28.0	0.19	--	--	5.4	--
16...	0957	0.31	--	--	--	--	--	--	--	--
16...	0957	0.31	--	--	--	--	--	--	--	--
16...	0958	10.0	190	7.20	28.0	--	--	--	5.1	--
16...	1000	15.0	190	7.20	28.0	--	--	--	5.1	--
19...	0820	1.00	165	7.20	28.5	0.14	--	--	6.3	--
19...	0821	0.23	--	--	--	--	--	--	--	--
19...	0822	10.0	165	7.00	27.5	--	--	--	4.6	--
19...	0824	15.0	165	7.00	27.5	--	--	--	4.4	--
25...	0926	1.00	175	7.10	30.5	0.14	--	--	5.4	--
25...	0927	0.22	--	--	--	--	--	--	--	--
25...	0928	10.0	165	6.70	29.0	--	--	--	1.2	--
25...	0930	15.0	140	6.90	28.0	--	--	--	0.5	--
AUG										
20...	1030	1.00	325	8.30	31.0	0.19	60	22	6.0	--
20...	1031	0.31	--	--	--	--	--	--	--	--
20...	1032	12.0	430	7.30	30.5	--	60	54	0	--

DATE	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
FEB										
06...	4.1	1000	880	47	14	15	2.3	19	1	2.8
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	4.1	--	--	45	9	14	2.3	19	1	2.7
MAY										
22...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
JUN										
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
AUG										
20...	4.9	K1	K1	62	0	20	2.8	40	2	4.3
20...	--	--	--	--	--	--	--	--	--	--
20...	4.9	--	--	74	0	24	3.4	53	3	4.9

LAKE HOUSTON NEAR SHELDON, TX--Continued

300209095091201 - LAKE HOUSTON SITE FC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	SOLIDS, VOLATILE, SUSPENDED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)
FEB										
06...	33	11	29	0.1	7.7	110	100	12	0.40	0.41
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	36	11	28	0.2	7.8	110	92	6	0.40	0.53
MAY										
22...	--	--	--	--	--	--	--	--	0.20	0.20
22...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	0.20	0.16
JUN										
16...	--	--	--	--	--	--	--	--	0.10	0.11
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	0.10	0.11
19...	--	--	--	--	--	--	--	--	0.20	0.19
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	0.30	0.25
25...	--	--	--	--	--	--	--	--	<0.10	<0.10
25...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	<0.10	<0.10
AUG										
20...	75	12	47	0.2	11	180	36	14	<0.10	<0.10
20...	--	--	--	--	--	--	--	--	--	--
20...	100	15	61	0.3	14	240	80	14	<0.10	<0.10

DATE	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)
FEB										
06...	0.8	1.2	0.35	0.196	21	--	--	1	75	<1
06...	--	--	--	--	--	2.70	0.30	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	0.7	1.0	0.37	0.189	18	--	--	1	120	<1
MAY										
22...	0.5	0.9	--	0.165	--	--	--	--	--	--
22...	--	--	--	--	--	22.0	2.80	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
22...	1.2	0.9	0.30	0.172	--	--	--	--	--	--
JUN										
16...	0.7	0.9	0.22	0.131	--	--	--	--	--	--
16...	--	--	--	--	--	5.80	0.70	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	0.8	0.8	0.24	0.141	--	--	--	--	--	--
19...	0.6	0.9	--	0.169	--	--	--	--	--	--
19...	--	--	--	--	--	24.0	4.60	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	0.7	1.2	--	0.152	--	--	--	--	--	--
25...	0.7	1.0	0.96	0.159	--	--	--	--	--	--
25...	--	--	--	--	--	30.0	3.20	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
25...	1.1	1.2	0.04	0.07	--	--	--	--	--	--
AUG										
20...	0.5	1.3	0.52	0.24	13	--	--	4	62	<1
20...	--	--	--	--	--	68.0	4.10	--	--	--
20...	1.2	2.2	0.77	0.60	12	--	--	6	89	5

LAKE HOUSTON NEAR SHELDON, TX--Continued

300209095091201 - LAKE HOUSTON SITE FC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
FEB									
06...	<10	2	120	<1	32	<0.1	<1	<1	<3
06...	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--
06...	<10	14	170	<1	120	<0.1	<1	<1	11
MAY									
22...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
JUN									
16...	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--
AUG									
20...	<10	3	12	<5	100	<0.1	<1	<1	12
20...	--	--	--	--	--	--	--	--	--
20...	<10	2	15	<5	390	<0.1	<1	<1	9

300214095090901 - LAKE HOUSTON SITE FL

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
FEB											
06...	1124	1.00	175	7.10	17.0	0.1	7.0	72	0.50	0.8	0.33
06...	1126	11.0	175	7.10	17.0	--	7.0	72	0.50	0.9	0.34
MAY											
22...	1100	1.00	225	7.90	25.0	0.16	7.9	95	0.10	1.0	0.32
22...	1102	9.00	220	7.80	25.0	--	7.6	92	0.20	1.0	0.32
JUN											
16...	1004	1.00	190	7.20	28.5	0.19	5.3	--	0.10	0.8	0.20
16...	1006	10.0	190	7.20	28.0	--	5.3	--	0.10	0.9	0.22
19...	0830	1.00	165	7.20	29.0	0.15	6.5	--	0.20	1.0	0.32
19...	0832	10.0	165	7.00	28.0	--	3.6	--	0.30	1.0	0.31
25...	0938	1.00	175	7.10	30.5	0.15	5.0	--	<0.10	0.9	0.30
25...	0940	10.0	175	6.80	29.0	--	0.4	--	<0.10	1.2	0.50
AUG											
20...	1056	1.00	330	8.30	31.0	0.18	5.9	--	<0.10	1.1	0.53
20...	1058	9.00	350	7.40	31.0	--	0	--	<0.10	1.3	0.57

Lake Houston AC (295516095080801)

Phytoplankton Analyses October 1985 to September 1986

Date	2-06-86
Time	1531
TOTAL CELLS/ml	85,454
NUMBER OF SPECIES	35
DEPTH COLLECTED (ft.)	0.51

Organisms	Cells/ml
CHLOROPHYTA (Green algae)	
Ankistrodesmus convolutus	227
Ankistrodesmus falcatus	114
Chlorococcum humicola	590
Chodatella subsalsa	227
Gloeocystis sp.	1136
Gloeothece linearis	114
Kirchneriella lunaris	227
Kirchneriella subsolitaria	114
Mesotaenium sp.	227
Scenedesmus armatus	454
Scenedesmus dimorphus	456
CHRYSOPHYTA (Golden-brown algae)	
Mallomonas sp.	114
CYANOPHYTA (Blue-green algae)	
Aphanocapsa delicatissima	23288
Aphanocapsa elachista	12042
Aphanothece saxicola	2726
Chroococcus multicoloratus	1136
Chroococcus pallidus	1931
Chroococcus turgidus	1818
Dactylococcopsis fascicularis	1250
Dactylococcopsis raphidioides	568
Lyngbya limnetica	909
Spirulina laxa	341
Synechococcus aeruginosa	227
Synechococcus elongatus	1022
CRYPTOPHYTA (Cryptomonads)	
Chroomonas sp.	114
BACILLARIOPHYTA (Diatoms)	
Order Centrales	
Cyclotella meneghiniana	454
Cyclotella stelligera	2954
Melosira italica	1477
Melosira lirata	682
Melosira sp. 1	27946
Stephanodiscus tenuis	114
Order Pennales	
Nitzschia acicularis	38
Nitzschia palea	63
Nitzschia symmetrica	13
Nitzschia subacicularis	341

Lake Houston AC (295516095080801)

Phytoplankton Analyses October 1985 to September 1986

Date	5-22-86
Time	1415
TOTAL CELLS/mL	9,770
NUMBER OF SPECIES	13
DEPTH COLLECTED (ft.)	0.48

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Ankistrodesmus falcatus var. *mirabilis*	57
Closterium sp.	57
Oocystis sp.	454
Scenedesmus bijuga	341
Tetraedron constrictum	57
CYANOPHYTA (blue-green algae)	
Merismopedia tenuissima	454
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Cyclotella meneghiniana	6021
Melosira granulata var. *angustissima*	227
Melosira italica	227
Melosira lirata	341
Stephanodiscus dubius	114
Stephanodiscus hantzschii var. *pusilus*	1079
Order Pennales	
Nitzschia paleacea ?	341

LAKE HOUSTON NEAR SHELDON, TX--Continued

Lake Houston AC (295516095080801)

Phytoplankton Analyses October 1985 to September 1986

Date	6-16-86
Time	1255
TOTAL CELLS/mL	44,648
NUMBER OF SPECIES	60
DEPTH COLLECTED (ft.)	0.41

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Ankistrodesmus falcatus var. *mirabilis*	114
Carteria sp. 1	909
Carteria sp. 2	227
Chlamydomonas sp. 1	341
Chlamydomonas sp. 2	114
Chlamydomonas sp. 3	454
Chlorococcum sp.	227
Chlorogonium sp. 1	114
Chlorogonium sp. 2	114
Dysmorphococcus sp.	227
Franceia sp.	114
Kirchneriella contorta	341
Kirchneriella lunaris	227
Oocystis sp.	454
Pteromonas sp.	114
Scenedesmus brasiliensis	454
Scenedesmus denticulus var. *recurvatus*	227
Scenedesmus sp.	454
Smithsonimonas (?) sp.	114
Sphaerocystis schroeteri	909
Tetraedron minimum	57
Tetraedron sp.	114
CHRYSOPHYTA (golden-brown algae)	
Mallomonas sp.	114
CYANOPHYTA (blue-green algae)	
Anabaenopsis circularis	227
Anabaenopsis phillippinenesis	909
Aphanocapsa delicatissima	5907
Aphanocapsa elachista	1363
Aphanothece sp.	568
Chroococcus limneticus	1931
Chroococcus multicoloratus	2499
Chroococcus pallidus	1704
Chroococcus varius	2272
Dactylococcopsis fascicularis	568
Merismopedia tenuissima	2272
Microcystis marina	909
Oscillatoria acutissima	227
Oscillatoria sp.	284
Phormidium sp.	568
Pseudoanabaena sp.	454
Synechococcus aeruginosa	1250
Synechococcus lineare	1477
Synechococcus lineare var. *spirale*	1136
Synechococcus sp.	5566
EUGLENOPHYTA (euglenoid algae)	
Euglena acus	341
Euglena sp.	114
PYRRHOPHYTA (dinoflagellates)	
Peridinium aciculiferum	57
Peridinium sp.	114
CRYPTOPHYTA (cryptomonads)	
Chroomonas sp.	114
Cryptomonas sp.	341
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Attheya zachariasi	114
Cyclotella meneghiniana	606
Cyclotella stelligera	303
Melosira granulata	454
Melosira lirata	909
Stephanodiscus dubius	341
Stephanodiscus lucens ?	1363
Stephanodiscus sp.	227
Order Pennales	
Anomoeoneis sp.	57
Nitzschia palea	341
Nitzschia subacicularis	227

LAKE HOUSTON NEAR SHELDON, TX--Continued

Lake Houston AC (295516095080801)

Phytoplankton Analyses October 1985 to September 1986

Date	8-20-86
Time	1353
TOTAL CELLS/mL	430,260
NUMBER OF SPECIES	52
DEPTH COLLECTED (ft.)	0.78

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Ankistrodesmus falcatus var. acicularis	284
Chlamydomonas sp.	1704
Chlorella sp.	568
Closterium sp.	568
Crucigenia apiculata	2272
Dictyosphaerium pulchellum	852
Elakatothrix gelatinosa	1136
Gloeocystis sp.	568
Golenkinia radiata	1136
Kirchneriella contorta	2272
Micratinium sp.	6248
Nephrocytium sp.	2272
Pediastrum tetras	568
Pteromonas sp.	284
Scenedesmus armatus var. bicaudatus	1136
Scenedesmus dimorphus	852
Scenedesmus parisiensis	1136
Scenedesmus quadricauda	1136
Scenedesmus serratus	6816
Tetraedron sp.	568
CYANOPHYTA (blue-green algae)	
Anabaena circinalis	4544
Anabaena sp.	3976
Anabaenopsis raciborskii ?	12496
Aphanocapsa delicatissima	39760
Aphanocapsa elachista	18744
Aphanocapsa elachista var. conferta	23288
Aphanocapsa pulchra	1136
Aphanothece saxicola	24992
Chroococcus pallidus	11360
Chroococcus refractus	568
Dactylococcopsis fascicularis	1136
Gloeocapsa sp.	12496
Lyngbya limnetica	6816
Merismopedia tenuissima	45440
Oscillatoria angustissima	3408
Oscillatoria limnetica	27832
Oscillatoria splendida	9656
Spirulina laxissima	7384
Synechococcus aeruginosa	3408
Synechococcus lineare	1704
Synechococcus sp.	128368
EUGLENOPHYTA (euglenoid algae)	
Trachelomonas sp.	284
CRYPTOPHYTA (cryptomonads)	
Chroomonas sp.	568
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Chaetoceros sp.	568
Cyclotella meneghiniana	399
Melosira distans	133
Melosira granulata	133
Melosira granulata var. angustissima f. spiralis	399
Melosira lirata	5322
Stephanodiscus tenuis ?	998
Order Pennales	
Anomoeoneis sp.	379
Navicula sp.	189

Lake Houston CC (295902095074201)

Phytoplankton Analyses October 1985 to September 1986

Date	2-06-86
Time	1335
TOTAL CELLS/ml	20,040
NUMBER OF SPECIES	13
DEPTH COLLECTED (ft.)	0.24

Organisms	Cells/ml
BACILLARIOPHYTA (Diatoms)	
Order Centrales	
Cyclotella meneghiniana	114
Cyclotella stelligera	568
Melosira granulata var. *angustissima* f. *spiralis*	454
Melosira islandica	2499
Melosira italica	454
Melosira sp. 1	13064
Stephanodiscus tenuis	1409
Order Pennales	
Navicula arvensis	99
Navicula perpusilla	197
Nitzschia acicularis	394
Nitzschia palea	197
Nitzschia paleacea	197
Nitzschia subacicularis	394

Lake Houston CC (295902095074201)

Phytoplankton Analyses October 1985 to September 1986

Date	5-22-86
Time	1221
TOTAL CELLS/mL	74,202
NUMBER OF SPECIES	43
DEPTH COLLECTED (ft.)	0.3

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Ankistrodesmus convolutus	568
Ankistrodesmus falcatus	114
Chlamydomonas sp. 1	114
Chlamydomonas sp. 2	114
Chodatella subsalsa	114
Kirchneriella contorta	454
Kirchneriella lunaris	909
Oocystis lacustris	909
Oocystis sp.	909
Pteromonas sp.	114
Scenedesmus acuminatus	454
Scenedesmus quadricauda	909
Scenedesmus serratus	227
Tetrastrum heteracanthum	454
Treubaria sp.	114
CYANOPHYTA (blue-green algae)	
Aphanocapsa delicatissima	13178
Aphanocapsa elachista	6362
Aphanothece sp.	682
Chroococcus multicoloratus	682
Dactylococcopsis fascicularis	568
Dactylococcopsis raphidioides	114
Merismopedia punctata	682
Merismopedia tenuissima	9997
Microcystis marina	3522
Microcystis pulverea	4317
Oscillatoria subtilissima	1363
Oscillatoria sp.	227
Spirulina laxa	909
Spirulina sp.	1590
Synechococcus lineare	454
Synechococcus lineare f. *spirale*	1704
EUGLENOPHYTA (euglenoid algae)	
Trachelomonas hispida	114
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Cyclotella meneghiniana	17835
Melosira ambigua	385
Melosira granulata var. *angustissima* f. *spiralis*	72
Melosira italica	169
Melosira lirata	72
Stephanodiscus sp.	795
Order Pennales	
Anomoeoneis sp.	114
Nitzschia ignorata	114
Nitzschia palea	341
Nitzschia subacicularis	341
Nitzschia sp.	1022

LAKE HOUSTON NEAR SHELDON, TX--Continued

Lake Houston CC (295902095074201)

Phytoplankton Analyses October 1985 to September 1986

Date	6-16-86
Time	1119
TOTAL CELLS/mL	43,743
NUMBER OF SPECIES	54
DEPTH COLLECTED (ft.)	0.33

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Actinastrum sp.	114
Ankistrodesmus convolutus	114
Ankistrodesmus sp.	227
Carteria sp.	682
Chlamydomonas sp. 1	114
Chlamydomonas sp. 2	227
Chlamydomonas sp. 3	114
Chlamydomonas sp. 4	114
Chlorococcum sp. 1	1136
Chlorococcum sp. 2 ?	568
Chlorogonium sp.	909
Dysmorphococcus sp.	227
Franceia sp.	227
Kirchneriella obesa	2045
Nephrocytium sp.	682
Phacotus lenticularis	114
Pteromonas aculeata	114
Schroederia setigera	114
Tetraedon gracile	114
Treubaria sp.	114
CHRYSOPHYTA (golden-brown algae)	
Kephyrion sp.	114
CYANOPHYTA (blue-green algae)	
Aphanocapsa delicatissima	5339
Aphanocapsa elachista	2840
Aphanothece sp. 1	1363
Aphanothece sp. 2	454
Chroococcus limneticus	1250
Chroococcus multicoloratus	1704
Chroococcus pallidus	1590
Coelosphaerium sp.	1022
Dactylococcopsis fascicularis	1022
Dactylococcopsis raphidioides	114
Merismopedia punctata	2499
Merismopedia tenuissima	3408
Oscillatoria angustissima	909
Oscillatoria geminata	909
Spirulina laxa	909
Spirulina laxissima	341
Synechococcus lineare	341
Synechococcus sp.	4090
EUGLENOPHYTA (euglenoid algae)	
Euglena acus	114
Gonyostomum semen	114
Trachelomonas hispida	114
Trachelomonas sp.	114
PYRRHOPHYTA (dinoflagellates)	
Ceratium hirundinella f. *brachycera*	114
CRYPTOPHYTA (cryptomonads)	
Chroomonas sp.	114
Cryptomonas sp.	227
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Cyclotella meneghiniana	1704
Melosira granulata var. *angustissima* f. *spiralis*	454
Melosira lirata	454
Melosira sp.	227
Stephanodiscus lucens ?	682
Order Pennales	
Anomoeoneis sp.	341
Nitzschia acicularis	114
Nitzschia sp.	568

Lake Houston CC (295902095074201)

Phytoplankton Analyses October 1985 to September 1986

Date	8-20-86
Time	1221
TOTAL CELLS/mL	888,523
NUMBER OF SPECIES	47
DEPTH COLLECTED (ft.)	0.56

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Ankistrodesmus nannoselene	1136
Chlamydomonas sp.	1136
Chlorella sp.	3408
Crucigenia apiculata	568
Franceia sp.	568
Kirchneriella lunaris	1704
Micratinium sp.	5680
Nephrocytium sp.	1136
Scenedesmus serratus	4544
Scenedesmus sp.	227
Tetraedron sp.	1704
Tetrastrum staurogeniaeforme	2272
CYANOPHYTA (blue-green algae)	
Anabaena sp.	1136
Anabaena circinalis	7952
Anabaenopsis raciborskii ?	6248
Aphanocapsa delicatissima	80656
Aphanocapsa elachista	64752
Aphanocapsa elachista var. *conferta*	24424
Chroococcus multicoloratus	5680
Chroococcus refractus	5680
Chroococcus turicensis	3976
Coelosphaerium sp.	12496
Dactylococcopsis fascicularis	5112
Dactylococcopsis raphidioides	1136
Lyngbya limnetica	2272
Merismopedia tenuissima	22720
Oscillatoria angustissima	3976
Oscillatoria limnetica	39760
Oscillatoria splendida	16472
Oscillatoria subtilissima	1136
Raphidiopsis curvata	511
Spirulina laxa	1704
Synechococcus aeruginosa	1704
Synechococcus lineare	5680
Synechococcus sp.	536760
CRYPTOPHYTA (cryptomonads)	
Cryptomonas sp.	1704
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Cyclotella meneghiniana	947
Cyclotella stelligera	757
Melosira granulata	663
Melosira granulata var. *angustissima*	379
Melosira granulata var. *angustissima* f. *spiralis*	473
Melosira lirata	4828
Rhizosolenia eriensis	568
Stephanodiscus tenuis ?	1041
Order Pennales	
Anomoeoneis sp.	723
Nitzschia palea	207
Nitzschia paleacea	207

Lake Houston EC (300158095074601)

Phytoplankton Analyses October 1985 to September 1986

Date	2-06-86
Time	0943
TOTAL CELLS/ml	2,178
NUMBER OF SPECIES	28
DEPTH COLLECTED (ft.)	0.16

Organisms	Cells/ml
CHLOROPHYTA (Green algae)	
Ankistrodesmus falcatus	57
Chlorococcum humicola	114
Closterium sp.	28
CYANOPHYTA (Blue-green algae)	
Anabaena sp.	114
Chroococcus multicoloratus	114
Dactylococcopsis fascicularis	114
Dactylococcopsis raphidioides	57
Merismopedia elegans	738
EUGLENOPHYTA (Euglenoids)	
Euglena viridis	28
BACILLARIOPHYTA (Diatoms)	
Order Centrales	
Melosira sp. 1	426
Stephanodiscus tenuis	28
Order Pennales	
Diploneis sp.	24
Hantzschia amphioxys	28
Navicula contenta var. biceps	24
Navicula ilopangensis	24
Navicula minuscula	12
Navicula notha	12
Navicula pelliculosa	12
Navicula pupula var. mutata	12
Navicula symetrica	24
Navicula sp.	48
Nitzschia acicularis	28
Nitzschia obtusa var. scalpelliformis	12
Nitzschia palea	24
Nitzschia paleacea	12
Nitzschia subacicularis	28
Nitzschia thermalis	24
Synedra rumpens	12

LAKE HOUSTON NEAR SHELDON, TX--Continued

Lake Houston EC (300158095074601)

Phytoplankton Analyses October 1985 to September 1986

Date	5-22-86
Time	0955
TOTAL CELLS/mL	110,752
NUMBER OF SPECIES	58
DEPTH COLLECTED (ft.)	0.34

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Actinastrum hantzschii	1136
Ankistrodesmus falcatus	57
Carteria sp.	227
Chlamydomonas sp. 1	227
Chlamydomonas sp. 2	114
Chlamydomonas sp. 3	114
Chlorococcum sp.	114
Chodatella subsalsa	114
Closterium sp.	114
Crucigenia apiculata	1590
Crucigenia tetrapedia	114
Dysmorphococcus sp.	227
Elakatothrix viridis	454
Franceia sp.	114
Kirchneriella contorta	795
Kirchneriella lunaris	682
Micractinium pusillum	454
Pandorina morum	682
Pteromonas sp.	227
Scenedesmus abundans	454
Scenedesmus armatus var. bicaudatus	454
Scenedesmus serratus	227
Scenedesmus sp.	227
Selenastrum westii	1136
Tetraedron constrictum	114
Tetrastrum staurogeniaeforme	454
CYANOPHYTA (blue-green algae)	
Aphanocapsa delicatissima	5226
Aphanocapsa elachista	6475
Aphanothece saxicola	12496
Chroococcus pallidus	1477
Dactylococcopsis fascicularis	909
Gloeocapsa sp.	2272
Merismopedia tenuissima	6816
Microcystis marina	39533
Microcystis pulvera	5433
Synechococcus elongatus ?	795
Synechococcus lineare	341
Synechococcus lineare var. spirale	909
EUGLENOPHYTA (euglenoid algae)	
Euglena sp.	57
Trachelomonas horrida	114
CRYPTOPHYTA (cryptomonads)	
Chroomonas sp.	114
Cryptomonas sp.	682
XANTHOPHYTA (yellow-green algae)	
Centritractus sp.	57
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Chaetoceros sp.	341
Cyclotella meneghiniana	13178
Melosira granulata	454
Melosira granulata var. angustissima f. spiralis	227
Melosira italica	341
Melosira lirata	227
Stephanodiscus dubius	341
Stephanodiscus hantzschii var. pusillus	114
Order Pennales	
Anomoeoneis sp.	114
Diploneis sp.	57
Navicula arvensis	7
Nitzschia acicularis	341
Nitzschia ignorata	57
Nitzschia palea ?	568
Surirella ovalis var. pyriformis	57

Lake Houston EC (300158095074601)

Phytoplankton Analyses October 1985 to September 1986

Date	6-16-86
Time	0917
TOTAL CELLS/mL	5,325
NUMBER OF SPECIES	26
DEPTH COLLECTED (ft.)	0.44

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Ankistrodesmus falcatus var. *acicularis*	57
Chlamydomonas sp. 1	170
Chlamydomonas sp. 2	227
Chlorococcum sp.	170
Chlorogonium sp.	114
Dysmorphococcus sp.	57
Kirchneriella contorta	57
Scenedesmus serratus	114
Sphaerocystis schroeteri	398
CHRYSOPHYTA (golden-brown algae)	
Mallomonas sp.	170
CYANOPHYTA (blue-green algae)	
Aphanocapsa delicatissima	1136
Chroococcus limneticus	170
Dactylococcopsis fascicularis	227
Lyngbya nana	909
Synechococcus aeruginosa	57
Synechococcus sp.	170
EUGLENOPHYTA (euglenoid algae)	
Euglena sp.	114
Trachelomonas hispida	114
Trachelomonas sp.	57
PYRRHOPHYTA (dinoflagellates)	
Glenodinium sp.	227
CRYPTOPHYTA (cryptomonads)	
Chroomonas sp.	57
Cryptomonas sp.	170
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Cyclotella meneghiniana	284
Order Pennales	
Navicula contenta var. *biceps*	57
Nitzschia amphibia	14
Nitzschia palea	28

LAKE HOUSTON NEAR SHELDON, TX--Continued

Lake Houston EC (300158095074601)

Phytoplankton Analyses October 1985 to September 1986

Date	8-20-86
Time	0933
TOTAL CELLS/mL	464,738
NUMBER OF SPECIES	43
DEPTH COLLECTED (ft.)	0.46

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Ankistrodesmus nannoselene	568
Carteria sp.	284
Chlorococcum sp.	1136
Chlorogonium sp.	284
Dictyosphaerium pulchellum	1704
Golenkinia radiata	284
Kirchneriella contorta	1420
Kirchneriella lunaris	2272
Scenedesmus quadricauda	1136
Scenedesmus serratus	2840
Scenedesmus sp.	568
Schroederia setigera	284
Tetraedron trigonum	284
Tetraedron sp.	852
Tetrastrum heteracanthum	1136
Tetrastrum staurogeniaeforme	1136
Treubaria triappendiculata	284
CYANOPHYTA (blue-green algae)	
Anabaena sp.	2840
Anabaenopsis raciborskii ?	3124
Aphanocapsa delicatissima	93720
Aphanocapsa elachista var. *conferta*	4544
Chroococcus dispersus	2840
Chroococcus refractus	568
Dactylococcopsis fascicularis	2272
Merismopedia punctata	6816
Merismopedia tenuissima	15904
Microcystis marina ?	9088
Oscillatoria angustissima	8804
Oscillatoria limnetica	20448
Oscillatoria splendida	3408
Oscillatoria subtilissima	1136
Synechococcus sp.	263552
CRYPTOPHYTA (cryptomonads)	
Cryptomonas sp. 1	852
Cryptomonas sp. 2	114
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Cyclotella meneghiniana	1278
Cyclotella stelligera	213
Cyclotella sp.	852
Melosira granulata	1491
Melosira granulata var. *angustissima* f. *spiralis*	284
Melosira lirata	2698
Melosira sp.	568
Order Pennales	
Navicula sp.	170
Nitzschia palea	682

Lake Houston FC (300209095091201)

Phytoplankton Analyses October 1985 to September 1986

Date	2-06-86
Time	1045
TOTAL CELLS/ml	3,779
NUMBER OF SPECIES	33
DEPTH COLLECTED (ft.)	0.20

Organisms	Cells/ml
CHLOROPHYTA (Green algae)	
Ankistrodesmus falcatus	114
Chlorococcum humicola	57
Closterium sp.	57
Gloeocystis sp.	114
CYANOPHYTA (Blue-green algae)	
Aphanocapsa delicatissima	341
Chroococcus multicoloratus	341
Dactylococcopsis fascicularis	170
BACILLARIOPHYTA (Diatoms)	
Order Centrales	
Melosira granulata	541
Melosira italica	425
Melosira lirata	39
Melosira varians	114
Melosira sp. 1	309
Melosira sp. 2	77
Stephanodiscus tenuis	154
Order Pennales	
Cymbella minuta	18
Hantzschia amphioxys	18
Navicula cryptocephala	36
Navicula cryptocephala var. *veneta*	18
Navicula halophila f. *tenuirostris*	18
Navicula lanceolata	109
Navicula pupula	18
Navicula pygmaea	18
Navicula symetrica	18
Navicula tenera	36
Navicula texana	36
Nedium sp.	55
Nitzschia frustulum	18
Nitzschia palea	146
Nitzschia paleacea	146
Nitzschia thermalis	91
Nitzschia sp. 1	73
Nitzschia sp. 2	36
Surirella minuta	18

LAKE HOUSTON NEAR SHELDON, TX--Continued

Lake Houston FC (300209095091201)

Phytoplankton Analyses October 1985 to September 1986

Date	5-22-86
Time	1051
TOTAL CELLS/mL	191,783
NUMBER OF SPECIES	75
DEPTH COLLECTED (ft.)	0.16

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Ankistrodesmus convolutus	341
Ankistrodesmus falcatus	114
Ankistrodesmus falcatus var. mirabilis	114
Ankistrodesmus nannoselene	114
Carteria sp.	341
Chlamydomonas sp.	568
Chlorococcum sp.	227
Chodatella subsalsa	341
Coelastrum sphaericum	2272
Elakatothrix viridis	454
Gloeocystis sp.	341
Kirchneriella contorta	227
Kirchneriella lunaris	227
Kirchneriella subsolitaria	1363
Micractinium pusillum	1818
Pteromonas sp.	114
Scenedesmus abundans	909
Scenedesmus armatus var. bicaudatus	454
Scenedesmus brasiliensis	909
Scenedesmus dimorphus	114
Scenedesmus quadricauda	227
Scenedesmus serratus	682
Scenedesmus sp.	454
Schroederia setigera	114
Tetraselmis sp.	114
Tetrastrum heteracanthum	454
Tetrastrum staurogeniaeforme	454
Treubaria sp.	114
CHRYSOPHYTA (golden-brown algae)	
Dinobryon bavaricum	341
CYANOPHYTA (blue-green algae)	
Aphanocapsa delicatissima	30672
Aphanocapsa elachista	26242
Aphanothece sp.	5680
Chroococcus multicoloratus	1136
Chroococcus pallidus	1363
Chroococcus varius	454
Dactylococcopsis fascicularis	2272
Merismopedia punctata	1818
Merismopedia tenuissima	59754
Microcystis marina	6475
Microcystis sp.	4658
Oscillatoria angustissima	4544
Oscillatoria limnetica	3408
Oscillatoria subtilissima	2954
Spirulina laxa	227
Synechococcus elongatus ?	4544
Synechococcus lineare	1590
Synechococcus lineare var. spirale	227
Synechocystis sp.	114
EUGLENOPHYTA (euglenoid algae)	
Euglena sp. 1	454
Euglena sp. 2	114
Phacus lemmermannii	227
Phacus orbicularis	114
Trachelomonas hispida	114
Trachelomonas horrida	227
PYRROPHYTA (dinoflagellates)	
Glenodinium sp.	341
Peridinium aciculiferum	114
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Chaetoceros sp.	114
Coscinodiscus sp.	114
Cyclotella meneghiniana	8634
Melosira ambigua	1193
Melosira distans	1325
Melosira granulata	1723
Melosira granulata var. angustissima f. spiralis	530
Melosira lirata	1477
Order Pennales	
Anomoeoneis sp.	227
Navicula arvensis	68
Navicula elginensis	136
Navicula pupula	68
Navicula pygmaea	68
Nitzschia acicularis	341
Nitzschia amphibia	422
Nitzschia fonticola	211
Nitzschia microcephala	633
Nitzschia palea	114
Nitzschia subacicularis	227

LAKE HOUSTON NEAR SHELDON, TX--Continued

Lake Houston FC (300209095091201)

Phytoplankton Analyses October 1985 to September 1986

Date	6-16-86
Time	0957
TOTAL CELLS/mL	59,530
NUMBER OF SPECIES	39
DEPTH COLLECTED (ft.)	0.31

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Ankistrodesmus nannoselene	114
Chlamydomonas sp. 1	227
Coelastrum sp.	1818
Micratinium sp.	909
Scenedesmus bijuga	2272
Scenedesmus brasiliensis	454
Scenedesmus serratus	227
CYANOPHYTA (blue-green algae)	
Anabaenopsis circularis	3408
Anabaenopsis philippinensis	909
Aphanizomenon sp.	5453
Aphanocapsa delicatissima	6816
Aphanocapsa elachista	11701
Chroococcus multicoloratus	2840
Chroococcus pallidus	682
Chroococcus varius	1363
Dactylococcopsis fascicularis	795
Dactylococcopsis raphidioides	114
Dactylococcopsis sp.	114
Merismopedia tenuissima	909
Microcystis marina	1818
Microcystis sp.	2499
Oscillatoria angustissima	3635
Oscillatoria geminata	454
Oscillatoria subtilissima	3635
Raphidiopsis curvata	1250
Spirulina laxa	682
Synechococcus aeruginosa	227
Synechococcus lineare	454
Synechococcus sp.	454
EUGLENOPHYTA (euglenoid algae)	
Euglena acus	341
Trachelomonas sp.	114
PYRRHOPHYTA (dinoflagellates)	
Glenodinium sp.	114
CRYPTOPHYTA (cryptomonads)	
Chroomonas sp.	114
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Cyclotella meneghiniana	568
Order Pennales	
Anomoeoneis sp.	341
Nitzschia acicularis	227
Nitzschia palea	114
Nitzschia subacicularis	114
Nitzschia sp.	1250

LAKE HOUSTON NEAR SHELDON, TX--Continued

Lake Houston FC (300209095091201)

Phytoplankton Analyses October 1985 to September 1986

Date	8-20-86
Time	1031
TOTAL CELLS/mL	829,425
NUMBER OF SPECIES	43
DEPTH COLLECTED (ft.)	0.31

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Ankistrodesmus falcatus var. mirabilis	3976
Ankistrodesmus nannoselene	1704
Ankistrodesmus sp.	568
Chlamydomonas sp.	568
Chlorogonium sp.	1136
Crucigenia apiculata	20448
Golenkinia radiata	568
Kirchneriella contorta	568
Kirchneriella lunaris	14768
Oocystis sp.	568
Pteromonas sp.	1136
Scenedesmus quadricauda	1136
Scenedesmus sp.	1136
Schroederia setigera	568
Tetraedron caudatum	568
Tetraedron sp.	1136
CYANOPHYTA (blue-green algae)	
Anabaena sp.	2272
Aphanocapsa delicatissima	11700
Aphanocapsa elachista	47144
Aphanocapsa elachista var. conferta	14200
Aphanothece saxicola	3976
Chroococcus refractus	5680
Dactylococcopsis fascicularis	14200
Gloeocapsa sp.	10224
Gomphosphaeria sp.	3408
Lyngbya limnetica	18176
Lyngbya nana	5680
Merismopedia glauca	3408
Merismopedia punctata	5680
Merismopedia tenuissima	87472
Merismopedia sp.	2272
Microcystis flos-aquae	14200
Oscillatoria limnetica	216976
Spirulina sp.	18176
Synechococcus lineare var. spirale	13632
Synechococcus sp.	235152
EUGLENOPHYTA (euglenoid algae)	
Euglena sp.	568
CRYPTOPHYTA (cryptomonads)	
Cryptomonas sp.	3976
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Cyclotella meneghiniana	10950
Cyclotella stelligera	3911
Melosira granulata	8604
Melosira lirata	8995
Stephanodiscus tenuis ?	3129
Order Pennales	
Anomoeoneis sp.	2045
Nitzschia palea	2045
Nitzschia sp.	1022

08072020 LAKE HOUSTON PLANT INTAKE AT GALENA PARK, TX

LOCATION.--Lat 29°44'01", long 95°12'58", Harris County, Hydrologic Unit 12040104, at city of Houston municipal water plant intake from Lake Houston West Canal and 1 mi east of Galena Park.

DRAINAGE AREA.--2,828 mi .

PERIOD OF RECORD.--Chemical analyses: May 1972 to current year. Pesticide analyses: May 1968 to September 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
NOV							
07...	1227	<1	<100	<1	<10	3	20
FEB							
06...	1108	<1	<100	<1	<10	2	20
MAY							
29...	1319	<1	300	<1	<10	9	30
AUG							
07...	1042	<1	<100	<1	<10	7	20

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV						
07...	<1	10	<0.1	<1	<1	30
FEB						
06...	3	<10	<0.1	<1	<1	<10
MAY						
29...	2	<10	<0.1	<1	<1	10
AUG						
07...	<5	60	<0.1	<1	<1	70

08072050 SAN JACINTO RIVER NEAR SHELDON, TX

LOCATION.--Lat 29°52'34", long 95°05'37", Harris County, Hydrologic Unit 12040104, on left bank at U.S. Highway 90 bridge, 0.3 mi downstream from Southern Pacific Railway Co. bridge, 1.5 mi east of Sheldon, 4.6 mi downstream from Lake Houston, and 21 mi northeast of Houston.

DRAINAGE AREA.--2,879 mi².

PERIOD OF RECORD.--February 1970 to current year (elevations only prior to 1973, beginning 1973, gage heights only).

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 0.69 ft below National Geodetic Vertical Datum of 1929, adjustment of 1973. Prior records unadjusted for land-surface subsidence.

REMARKS.--Records fair. Except during periods of runoff, gage heights reflect tidal fluctuations. Telemetry at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 20.12 ft June 15, 1973; minimum recorded elevation, -2.52 ft Oct. 28, 1985.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation since at least 1875, 31.5 ft Nov. 26, 1940, at site 0.3 mi upstream at Southern Pacific Railway Co. bridge.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 12.60 ft Nov. 27 at 0900 hours; minimum, -2.52 ft Oct. 28.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	2.47	.72	2.88	.80	4.27	1.63	---	---	2.42	1.05	1.68	-0.92
2	2.68	1.33	3.22	1.24	2.19	.66	---	---	2.17	.59	2.20	.27
3	2.90	1.36	2.54	.71	2.93	---	---	---	3.43	.63	1.93	-0.12
4	2.82	1.13	2.28	.62	---	---	---	---	4.36	2.84	1.48	-0.64
5	2.09	.05	2.26	.74	---	---	---	---	4.32	2.75	1.98	-0.50
6	2.28	.70	2.43	.80	---	---	---	---	3.73	2.78	2.10	.03
7	2.74	1.39	1.93	.53	---	---	---	---	4.00	3.03	2.18	.12
8	3.46	1.45	2.81	.58	---	---	---	---	4.17	2.06	2.63	.83
9	3.12	1.35	3.17	1.76	---	---	---	---	2.82	1.17	2.59	1.08
10	3.07	1.27	3.12	1.72	---	---	---	.13	2.52	.71	2.33	1.07
11	2.88	1.40	3.49	1.29	---	---	2.22	-0.07	1.48	-0.01	2.63	1.22
12	2.93	1.32	3.53	1.49	---	---	2.26	-1.20	1.96	.78	3.50	1.54
13	3.18	1.78	3.52	1.55	---	---	.53	-1.95	2.57	1.15	2.51	.93
14	3.41	1.69	3.54	1.71	---	---	.57	-2.17	2.68	1.32	2.83	.61
15	3.37	.72	3.54	1.35	---	---	1.66	-1.82	2.39	.33	2.49	.76
16	2.70	.66	2.89	.88	---	---	1.99	1.28	2.85	1.23	2.48	.62
17	3.02	1.64	2.96	1.51	---	---	2.20	1.10	2.57	.96	3.43	.86
18	3.82	1.67	3.29	1.87	---	---	2.18	.91	2.34	.54	3.43	1.74
19	3.52	1.39	3.19	1.46	---	---	1.99	.33	2.26	.67	2.25	.02
20	3.35	1.19	2.05	.97	2.35	1.01	2.07	.27	2.52	.42	1.41	-0.59
21	3.10	1.40	2.57	1.11	2.09	.87	2.13	.45	2.23	.03	1.37	-0.31
22	3.31	1.68	3.11	1.50	2.14	.57	1.80	-0.06	1.80	-0.20	2.17	.47
23	3.45	1.70	3.73	2.62	2.08	.29	2.09	-0.23	2.38	.23	1.92	.58
24	3.11	1.85	3.73	1.85	2.07	.06	2.48	.83	2.36	.50	1.92	.27
25	3.13	1.88	9.40	3.72	1.32	-1.00	2.48	.12	2.08	.09	2.64	1.27
26	3.60	2.26	12.30	9.40	1.52	-0.36	1.65	-1.51	2.41	.87	2.58	1.33
27	3.19	.94	12.60	11.05	---	---	.34	-2.10	2.12	.15	2.01	.59
28	.94	-2.52	11.05	5.85	---	---	1.86	.32	.62	-1.08	1.90	-0.01
29	-0.10	-2.38	5.85	3.43	---	---	1.86	.10	---	---	2.15	.08
30	-0.90	-2.49	4.28	2.90	---	---	1.70	.38	---	---	2.54	.30
31	.87	-1.34	---	---	---	---	2.25	1.01	---	---	3.01	.89

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	2.96	.75	2.97	1.37	---	---	---	---	1.69	-0.13	2.80	1.07
2	3.21	.70	2.70	1.10	---	---	---	---	1.48	-0.22	3.17	1.00
3	4.20	1.88	2.94	1.41	3.03	---	---	---	2.17	-0.38	2.95	1.47
4	3.93	2.00	2.98	1.73	3.61	1.54	---	---	2.27	.02	2.79	1.27
5	3.12	1.63	3.39	2.46	3.44	2.11	---	---	2.81	.43	2.57	1.15
6	2.64	1.20	3.28	2.27	3.54	1.67	---	---	2.57	.55	2.64	1.02
7	2.47	1.43	3.44	1.92	3.22	1.34	---	---	2.32	.73	2.58	1.22
8	2.38	1.20	3.44	1.82	4.72	1.51	---	---	2.19	.80	2.44	1.09
9	2.30	.68	3.70	1.41	6.21	4.72	---	---	2.44	.92	2.65	1.17
10	2.59	.88	3.30	1.47	8.48	5.86	2.62	---	2.20	1.12	2.99	1.32
11	2.88	1.01	3.01	1.16	8.73	8.38	2.62	.79	2.13	.67	3.15	1.12
12	2.59	1.10	2.80	.82	8.38	7.72	2.64	1.08	1.99	.44	2.82	.57
13	2.68	.67	2.70	.67	7.72	5.38	2.56	1.32	2.25	.64	2.53	.48
14	2.88	1.23	3.67	.89	5.38	---	2.43	1.07	2.43	.69	2.67	.62
15	---	.57	4.04	1.60	---	---	2.17	.42	2.52	.68	2.96	1.02
16	2.22	.75	4.13	2.16	---	---	2.09	.29	2.42	.46	2.85	1.18
17	2.84	.70	4.38	2.47	---	---	2.06	.17	2.11	.16	3.11	1.31
18	3.26	1.59	3.36	1.30	---	---	1.98	-0.12	1.72	-0.21	3.17	1.85
19	3.41	1.78	2.30	.93	---	---	2.02	-0.18	1.90	-0.52	3.00	1.70
20	2.73	.43	2.75	1.19	---	---	1.71	-0.48	1.89	-0.11	3.07	1.67
21	1.63	.12	3.09	1.66	---	---	2.07	-0.39	2.36	.07	3.07	1.48
22	2.00	.43	3.64	1.70	---	---	2.12	-0.14	2.52	.67	3.35	1.68
23	2.67	.86	3.89	1.90	---	---	1.94	-0.05	2.99	1.38	3.10	1.49
24	2.78	.92	3.44	1.29	---	---	1.85	.12	2.01	.55	3.33	1.90
25	2.98	.83	3.49	.99	---	---	1.83	.33	1.99	.61	3.45	1.98
26	3.05	.90	2.75	.63	---	---	1.68	.47	2.07	.65	3.52	1.77
27	3.37	1.12	3.07	.79	---	---	1.71	.49	2.13	.46	3.10	1.55
28	3.12	.71	2.68	1.10	---	---	1.63	.08	2.32	.14	3.48	1.55
29	3.26	.82	2.81	1.05	---	---	1.45	-0.02	2.00	.14	3.91	1.95
30	3.37	1.38	3.12	1.38	---	---	1.62	-0.16	2.56	.63	3.71	2.23
31	---	---	---	---	---	---	1.53	-0.33	2.87	.76	---	---

08072300 BUFFALO BAYOU NEAR KATY, TX

LOCATION.--Lat 29°44'35", long 95°48'24", Fort Bend County, Hydrologic Unit 12040104, on left bank at bridge on county road, 2.5 mi downstream from confluence of Willow Fork and Cane Island Branch of Buffalo Bayou, and 3.1 mi southeast of Katy.

DRAINAGE AREA.--63.3 mi^2.

PERIOD OF RECORD.--July 1977 to current year.
Water-quality records: Chemical and biochemical analyses: June 1978 to September 1981.

GAGE.--Water-stage recorder. Datum of gage is 75.02 ft above National Geodetic Vertical Datum of 1929, 1973 adjustment. Gage located at temporary site 250 ft upstream Jan. 18, 1985, to Sept. 30, 1985; all records adjusted to original site and datum.

REMARKS.--Estimated daily discharges: Nov. 14-21. Records good. Stage discharge relationship affected by seasonal vegetal growths during most years. Telemetry at station.

AVERAGE DISCHARGE.--9 years, 50.0 ft^3/s, 36,220 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,920 ft^3/s Sept. 20, 1979 (gage height, 37.54 ft); minimum daily estimated, 0.30 ft^3/s Dec. 26-29, 1984 (result of regulation).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,150 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 11	1800	*2,690	*37.56	Dec. 12	2200	1,210	32.38
Nov. 24	2100	1,760	34.56	June 8	1900	2,080	36.07

Minimum daily discharge, 0.70 ft^3/s Jan. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	29	64	1.2	2.4	.93	1.4	73	98	5.5	10	9.7
2	16	30	46	1.2	2.5	.98	1.2	44	57	5.5	9.1	14
3	14	29	32	1.1	2.3	23	1.2	21	32	5.0	11	19
4	9.3	20	17	1.1	18	93	1.5	7.5	17	4.2	21	12
5	6.9	16	9.3	.77	16	21	1.3	5.9	50	4.1	29	32
6	5.7	14	5.6	.78	160	7.7	1.2	3.6	219	4.2	43	132
7	4.9	19	4.0	.70	83	3.7	1.8	3.3	184	3.9	42	122
8	4.4	30	3.1	2.1	40	2.4	2.8	2.4	1280	5.2	36	63
9	3.9	12	2.5	3.1	61	1.6	5.4	2.2	1460	5.9	37	44
10	3.7	6.9	2.0	5.6	43	1.7	32	6.6	788	6.4	40	25
11	3.4	1170	547	2.6	23	1.3	27	8.1	618	8.4	38	16
12	4.6	872	816	1.5	12	12	8.5	4.9	522	7.5	33	21
13	9.1	169	758	1.1	6.5	2.7	4.9	3.8	344	5.8	23	9.6
14	9.2	70	266	18	4.5	3.1	3.5	4.1	306	5.9	15	7.4
15	359	40	123	15	3.2	1.8	1.9	7.0	192	5.6	11	6.0
16	117	25	68	4.3	2.5	5.7	1.5	4.8	127	6.7	6.1	5.8
17	64	20	43	19	2.1	4.4	1.6	15	74	7.1	7.0	6.6
18	59	16	31	24	1.8	2.2	1.5	66	44	6.4	6.8	4.6
19	49	13	19	8.7	1.9	1.8	1.2	31	31	7.0	4.1	3.6
20	35	9.5	13	4.7	5.0	1.4	9.6	13	21	6.7	2.1	4.7
21	240	7.5	9.9	3.1	3.8	1.4	9.9	7.1	15	5.6	1.7	5.7
22	270	6.1	7.0	2.9	2.3	1.4	3.7	4.7	106	12	2.4	15
23	89	4.9	5.4	3.6	1.8	1.5	3.0	2.9	132	8.9	32	12
24	55	506	4.1	2.1	1.5	1.4	1.9	2.8	69	5.4	28	8.5
25	41	866	2.8	1.3	1.6	1.3	1.4	2.7	39	10	18	5.5
26	38	234	2.2	1.6	1.6	1.3	1.1	7.5	25	10	12	4.1
27	22	289	1.9	1.2	1.3	1.6	1.4	36	15	13	8.5	3.4
28	33	270	3.3	1.3	1.3	1.5	4.1	49	11	10	6.7	3.1
29	68	126	2.3	4.0	---	1.5	5.7	25	7.3	21	5.5	4.4
30	40	71	1.8	3.9	---	1.5	5.1	94	5.3	12	4.0	3.9
31	41	---	1.4	2.3	---	1.7	---	159	---	11	4.4	---
TOTAL	1737.1	4990.9	2911.6	143.85	505.9	208.51	148.3	717.9	6888.6	235.9	547.4	623.6
MEAN	56.0	166	93.9	4.64	18.1	6.73	4.94	23.2	230	7.61	17.7	20.8
MAX	359	1170	816	24	160	93	32	159	1460	21	43	132
MIN	3.4	4.9	1.4	.70	1.3	.93	1.1	2.2	5.3	3.9	1.7	3.1
AC-FT	3450	9900	5780	285	1000	414	294	1420	13660	468	1090	1240

CAL YR 1985 TOTAL 18974.6 MEAN 52.0 MAX 1200 MIN 1.2 AC-FT 37640
WTR YR 1986 TOTAL 19659.56 MEAN 53.9 MAX 1460 MIN .70 AC-FT 38990

08072500 BARKER RESERVOIR NEAR ADDICKS, TX

LOCATION.--Lat 29°46'11", long 95°38'49", Harris County, Hydrologic Unit 12040104, at dam on Buffalo Bayou, 45 ft upstream from reservoir outlet works, 1,160 ft upstream from Addicks-Howell county road, 1.1 mi south of Addicks, and 1.2 mi upstream from South Mayde Creek.

DRAINAGE AREA.--128 mi². Prior to August 1977, 134 mi². Basin boundary to change due to relocation of drainage ditches. During extreme floods, basin may receive and (or) lose runoff due to basin interchange.

PERIOD OF RECORD.--August 1945 to current year. On October 1973, the upper gage was converted to a flood-hydrograph partial-record station.
Water-quality records.--Chemical and biochemical analyses: June 1978 to September 1981.

REVISED RECORDS.--WDR TX-77-1: Drainage area.

GAGE.--Water-stage recorders. Datum of gage is National Geodetic Vertical Datum of 1929, 1973 adjustment; unadjusted for land-surface subsidence (since 1973). Prior to Oct 1, 1980, 0.33 ft below National Geodetic Vertical Datum of 1929, unadjusted for land-surface subsidence.

REMARKS.--The reservoir is formed by a rolled earthfill dam 72,900 ft long. The dam was completed Feb. 3, 1946, but was used as early as the spring of 1945 for flood control. The reservoir is operated for flood protection for the city of Houston. The controlled outlet works consist of five concrete conduits, 9 by 7 ft wide, each controlled by a vertical slide gate. U.S. Army Corps of Engineers gage-height telemeter at station. Figures given herein represent total contents. Data regarding the dam and reservoir are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam..	112.5	-
Ground elevation at ends of dam..	106.0	209,000
Design flood...	105.4	199,000
Crest of spillway (invert)...	73.2	0

COOPERATION.--The capacity table, furnished by the U.S. Army Corps of Engineers, is based on extensive releveling survey made in 1974 using National Geodetic Vertical Datum, 1973 adjustment as base.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 39,200 acre-ft May 15, 1968 (gage height, 94.60 ft, former datum and former capacity table); minimum, reservoir was dry at times.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 15,710 acre-ft Dec. 1 at 0600 to 1500 hours (elevation, 90.02 ft); minimum, 0.10 acre-ft on Aug. 19 (elevation, 73.61 ft).

Capacity table (elevation, in feet, and total contents, in acre-feet)

73.2	0	78.4	14	81.6	193	86.0	3,980
75.8	1	79.2	22	82.2	331	87.0	6,000
76.3	2	79.8	32	83.0	671	88.5	10,100
76.9	4	80.4	49	84.0	1,370	90.2	16,520
77.6	8	81.0	100	85.0	2,430		

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	160.00	37.6	15620.0	.14	.13	e.14	.15	e2.90	16.7	.20	.19	.18
2	.46	.5	15360.0	.14	.13	e.14	.14	20.50	9.3	.19	.19	.19
3	.20	.4	14900.0	.14	.23	.28	.14	6.10	5.5	.17	.21	.19
4	.21	.3	14410.0	.13	26.70	e7.20	.14	.24	10.7	.15	.48	.22
5	.18	.2	13430.0	.13	39.20	.34	.14	.19	37.0	.14	1.30	.21
6	.15	.2	12070.0	.13	144.00	e.20	.14	.17	240.0	.14	.35	50.20
7	.14	.2	10790.0	.13	162.00	.17	.14	.16	589.0	.16	.30	932.00
8	.14	.2	9480.0	.18	34.40	.15	.14	e.16	1370.0	.16	.28	1680.00
9	.14	.2	8200.0	.23	126.00	.15	.20	.16	3290.0	.16	.25	1560.00
10	.14	.2	6890.0	.27	240.00	.15	.47	e.25	5470.0	.16	.29	1370.00
11	.14	397.0	8170.0	.18	150.00	.16	e.28	.28	7620.0	.16	.29	337.00
12	.14	8090.0	10330.0	.15	30.10	.34	e.18	.21	8920.0	.17	.27	.33
13	.17	11760.0	11340.0	.14	19.80	.20	.17	.16	9570.0	.17	.22	.33
14	.18	13200.0	11410.0	.14	9.80	.16	.16	.16	9850.0	.16	.19	.27
15	45.80	13740.0	10720.0	.23	1.70	.15	.16	.23	9940.0	.16	.18	.19
16	555.00	13850.0	9450.0	.17	.39	.15	.16	.18	9790.0	.15	e.16	.21
17	575.00	13890.0	8520.0	.16	.43	.16	.16	.16	10130.0	.14	.15	.19
18	169.00	13090.0	7270.0	.24	.18	.15	.16	.37	9880.0	.14	.14	.17
19	3.50	12180.0	5860.0	.20	.17	.15	.16	.30	9300.0	.16	.10	.17
20	.62	11130.0	4500.0	.17	.15	.15	.26	.20	8400.0	.16	.15	.37
21	.40	9910.0	3120.0	.15	.15	.15	.20	.17	7350.0	.16	.12	.22
22	35.00	8580.0	1720.0	.14	.15	.15	.16	.16	6510.0	.15	.12	.18
23	235.00	7250.0	383.0	.14	.15	e.15	.15	.16	6000.0	.16	1.80	.21
24	285.00	7890.0	.2	.13	.15	.15	.15	e.16	5190.0	.16	2.30	.19
25	122.00	10990.0	.2	.12	.14	.15	.15	.16	4550.0	.16	.27	.18
26	9.00	12870.0	.2	.11	.14	e.15	.15	.16	4710.0	.17	.19	.16
27	.31	13970.0	.2	.11	.14	.15	.15	.32	3830.0	.20	.17	.15
28	21.30	14940.0	.2	.15	.14	.15	.16	.34	2250.0	.21	.15	.15
29	277.00	15450.0	.2	e.20	---	.15	.15	.25	683.0	.18	.14	.19
30	589.00	15620.0	.2	e1.30	---	.15	.15	.28	.4	.20	.14	.16
31	373.00	---	.2	.14	---	e.15	---	e10.70	---	.20	.15	---
MAX	589	15620	15620	1.3	240	7.2	.47	20	10130	.21	2.3	1680
MIN	.14	.20	.20	.11	.13	.14	.14	.16	.40	.14	.10	.15

CAL YR 1985 MAX 15620 MIN .13
WTR YR 1986 MAX 15620 MIN .10

e Estimated.

08072730 BEAR CREEK NEAR BARKER, TX

LOCATION.--Lat 29°49'50", long 95°41'12", Harris County, Hydrologic Unit 12040104, on right bank at upstream side of bridge on Clay Road, 2.5 mi west of State Highway 6, and 4.1 mi upstream from mouth of Langham Creek.

DRAINAGE AREA.--19.8 mi^2.

PERIOD OF RECORD.--July 1977 to current year. Gage at temporary location 1,100 ft downstream Mar. 1 to Sept. 30, 1984.
Water-quality records.--Chemical and biochemical analyses: June 1978 to September 1981.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 100.00 ft above National Geodetic Vertical Datum of 1929, 1973 adjustment. Mar. 1, 1984, to Mar. 12, 1985, at site 1,100 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Dec. 11, 13-15, July 16-22, 30, 31, Aug. 1, 20-22, 29, 30, and Sept. 25-28. Records fair except those for estimated daily discharges, which are poor. Channel was rectified in 1981 water year. Considerable diversions and return of irrigation water from area above station. Gage-height telemeter at station.

AVERAGE DISCHARGE.--9 years, 21.6 ft^3/s, (15,650 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,060 ft^3/s Aug. 31, 1981 (gage height, 15.86 ft); maximum gage height, 16.72 ft Sept. 20, 1979, occurred prior to channel rectification; no flow for many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 11	2000	465	11.35	June 9	0700	485	11.44
Nov. 24	1900	*720	*12.79	June 13	1500	663	12.48
May 30	2000	513	11.62				

Minimum daily discharge, 0.01 ft^3/s Apr. 17, 26, and 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	18	39	.21	.08	.06	.13	55	57	3.3	.09	2.8
2	3.1	27	24	.15	.05	.07	.07	15	20	1.7	4.0	.55
3	2.9	17	15	.12	.04	4.5	.06	2.4	8.6	.99	6.9	.48
4	2.6	11	9.7	.11	12	4.0	.07	1.1	4.9	.24	8.2	.69
5	2.5	6.4	6.6	.14	7.5	.28	.05	1.7	27	.14	7.3	2.7
6	1.8	3.4	4.7	.09	47	.13	.03	1.2	26	.08	6.9	59
7	1.2	1.4	3.4	.07	62	.12	.07	.62	39	8.9	3.8	39
8	.33	.40	2.5	.50	31	.10	.06	.36	205	17	1.9	16
9	.59	.13	1.9	3.7	23	.11	.04	.28	434	31	5.0	6.2
10	.77	.06	1.4	5.5	11	.10	7.0	4.1	272	48	4.9	4.3
11	.32	199	125	.66	7.2	.09	.71	2.4	234	7.5	9.9	4.1
12	.06	268	237	.26	2.7	6.0	.11	.49	201	3.7	13	3.3
13	.03	110	249	.14	2.9	.22	.08	.34	323	3.7	4.7	3.2
14	.11	49	148	.09	2.0	.11	.02	.55	246	3.8	.91	2.1
15	52	25	86	.07	1.3	.07	.02	2.2	160	.64	.39	.78
16	68	14	55	.06	.98	.06	.02	.53	125	4.6	.19	.68
17	40	7.3	34	1.1	.68	.06	.01	5.0	192	1.5	.13	.40
18	37	3.2	21	3.0	.43	.07	.02	6.5	64	1.4	.45	1.2
19	34	2.5	14	3.5	.37	.11	.02	.46	29	1.4	.16	.41
20	16	.57	9.5	1.7	.31	.07	1.6	.45	13	1.3	.12	3.8
21	22	.11	6.7	.86	.18	.06	.06	.38	31	1.3	.08	1.1
22	23	.17	4.6	.44	.15	.04	.02	.35	206	1.4	1.0	1.5
23	20	.88	3.5	.20	.12	.04	.03	.25	142	1.1	45	.87
24	10	248	2.4	.12	.12	.04	.02	.36	52	.81	13	.24
25	7.2	504	1.3	.08	.11	.06	.02	2.6	24	.47	1.3	.15
26	8.6	184	.51	.06	.21	.05	.01	8.5	14	.26	2.9	.10
27	11	103	.64	.04	.13	.15	.01	80	13	.14	.35	.20
28	24	85	.52	.06	.07	.27	.05	22	10	.13	.32	7.0
29	17	71	.39	.07	---	.21	.03	4.5	6.5	.12	.17	4.1
30	19	50	.29	.06	---	.21	.02	119	3.0	.11	.10	.17
31	19	---	.27	.12	---	.18	---	224	---	.10	8.1	---
TOTAL	450.51	2009.52	1107.82	23.28	213.63	17.64	10.46	562.62	3182.0	146.83	151.26	167.12
MEAN	14.5	67.0	35.7	.75	7.63	.57	.35	18.1	106	4.74	4.88	5.57
MAX	68	504	249	5.5	62	6.0	7.0	224	434	48	45	59
MIN	.03	.06	.27	.04	.04	.04	.01	.25	3.0	.08	.08	.10
AC-FT	894	3990	2200	46	424	35	21	1120	6310	291	300	331

CAL YR 1985 TOTAL 8544.07 MEAN 23.4 MAX 515 MIN .00 AC-FT 16950
WTR YR 1986 TOTAL 8042.69 MEAN 22.0 MAX 504 MIN .01 AC-FT 15950

08073000 ADDICKS RESERVOIR NEAR ADDICKS, TX

LOCATION.--Lat 29°47'28", long 95°37'24", Harris County, Hydrologic Unit 12040104, at dam on South Mayde Creek, 65 ft upstream from reservoir outlet works, 2,700 ft upstream from U.S. Highway 90, 1.2 mi east of Addicks, and 1.4 mi upstream from mouth.

DRAINAGE AREA.--129 mi². Prior to Aug. 1, 1977, 133 mi². Basin boundary change to relocation of drainage ditches. During extreme floods, basin may receive and (or) lose runoff due to basin interchange.

PERIOD OF RECORD.--June 1948 to current year. In October 1973, the upper gages were converted to flood-hydrograph partial-record stations.

Water-quality records.--Chemical and biochemical analyses: June 1978 to September 1981.

REVISED RECORDS.--WDR TX-77-1: Drainage area.

GAGE.--Water-stage recorders. Datum of gage is National Geodetic Vertical Datum of 1929, 1973 adjustment; unadjusted for land-surface subsidence (since 1973). Prior to Oct. 1, 1980 datum of gage was National Geodetic Vertical Datum of 1929, unadjusted for land-surface subsidence that occurred prior to that date.

REMARKS.--The reservoir is formed by a rolled earthfill dam 61,166 ft long. The dam was completed in December 1948. The reservoir is operated for flood protection for the city of Houston. The outlet works consist of five concrete conduits 8 by 6 ft wide, each controlled by a vertical slide gate. Runoff in excess of maximum design capacity will be discharged around both ends of dam. Gage-height telemeter at station. Figures given herein represent total contents. Data regarding the dam and reservoir are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	121.6	-
Design flood	112.7	212,500
Ground elevation at ends of dam	112.0	200,800
Crest of spillway (invert)	71.0	0

COOPERATION.--The capacity table, furnished by the U.S. Army Corps of Engineers, was based on extensive releveling survey in 1974, using National Geodetic Vertical Datum, 1973 adjustment.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 37,460 acre-ft May 15, 1968 (elevation, 100.02 ft, former datum and former capacity table); minimum, reservoir was dry at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in December 1935 reached a stage of 89.9 ft, former datum, at bridge on U.S. Highway 90, 2,700 ft downstream from gage, from information by the U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 16,080 acre-ft Nov. 29 at 1000 hours (elevation, 93.85 ft); minimum, 0.36 acre-ft on many days (elevation, 71.67 ft).

Capacity table (elevation, in feet, and total contents, in acre-feet)

71.1	0	77.2	54	81.5	351	88.0	3,190
73.6	2	78.0	85	83.0	598	90.0	5,710
75.1	8	79.0	134	84.5	1,030	92.0	9,940
75.7	16	80.0	202	86.0	1,680	94.0	16,680
76.4	30						

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	623.00	500.0	14580.0	.40	.46	.46	.89	90.90	884	.49	.38	.77
2	214.00	298.0	13680.0	.39	.47	.50	.79	200.00	689	.49	.41	.59
3	.76	115.0	12640.0	.39	.59	.87	.73	73.00	491	.44	.44	.41
4	.72	.9	11530.0	.38	32.90	1.30	.79	.98	559	.38	.46	.41
5	.60	.7	10080.0	.38	.82	.76	.64	.85	652	.37	1.10	.43
6	.50	.5	8540.0	.38	43.10	.52	.83	.81	903	.36	1.50	202.00
7	.48	.5	6980.0	.36	70.60	.47	.79	.74	1120	.62	.74	1010.00
8	.46	.5	5490.0	.50	1.80	.45	.88	.69	1850	1.10	.59	844.00
9	.48	.4	4050.0	.72	165.00	.46	.79	.69	3820	21.20	.74	420.00
10	.47	.4	2830.0	1.00	69.00	.49	27.60	1.20	4900	1.70	.61	85.00
11	.44	473.0	3900.0	.52	1.40	.49	1.90	1.80	5340	.89	.55	.51
12	.45	4160.0	6940.0	.45	.99	26.60	1.00	.41	6240	.56	.51	.46
13	.79	5760.0	9280.0	.43	.79	1.10	.78	.37	6560	.46	.46	.44
14	1.10	6130.0	9970.0	.41	.70	.74	.74	.36	7250	.46	.43	.45
15	352.00	6270.0	9940.0	.40	.65	.61	.65	.47	7130	.84	.41	.43
16	824.00	6310.0	9540.0	.40	.65	.72	.62	.42	6800	.99	.46	.70
17	707.00	6340.0	9010.0	.48	.67	.64	.42	.38	7050	.58	.48	.47
18	343.00	6270.0	8360.0	.65	.61	.59	.41	.86	7000	.48	.46	.95
19	210.00	6040.0	7130.0	.55	.55	.56	.67	.48	6690	.41	.41	.69
20	282.00	5810.0	5710.0	.48	.64	.57	1.90	.39	5960	.39	.41	.83
21	78.40	5250.0	4270.0	.46	.55	.55	1.00	.38	5090	.39	.40	1.40
22	160.00	4490.0	2810.0	.43	.47	.56	.75	.36	4720	.38	.38	.86
23	21.20	3760.0	1370.0	.41	.49	.59	.61	.36	4480	.41	149.00	.55
24	.96	5110.0	227.0	.41	.54	.59	.67	.36	3820	.39	357.00	.60
25	.64	12310.0	.5	.39	.48	.55	.64	.37	3090	.38	174.00	.41
26	.62	14180.0	.5	.41	.48	.60	.61	1.10	3140	.38	311.00	.41
27	.54	15100.0	.5	.43	.48	.63	.64	49.30	2860	.40	125.00	.41
28	141.00	15880.0	.4	.43	.47	.60	1.60	113.00	2210	.41	.59	.49
29	475.00	15800.0	.4	.43	---	.65	1.10	1.80	1510	.38	.41	.74
30	635.00	15290.0	.4	.44	---	.76	.78	3.50	498	.38	.38	.44
31	809.00	---	.4	.45	---	.97	---	625.00	---	.38	.77	---
MAX	824	15880	14580	1.0	165	26	27	625	7250	21	357	1010
MIN	.44	.40	.40	.36	.46	.45	.41	.36	491	.36	.38	.41

CAL YR 1985 MAX 15880 MIN .34
WTR YR 1986 MAX 15880 MIN .36

08073500 BUFFALO BAYOU NEAR ADDICKS, TX

LOCATION.--Lat 29°45'42", long 95°36'20", Harris County, Hydrologic Unit 12040104, near right bank at bridge on Dairy-Ashford Road over rectified channel, 1.8 mi downstream from South Mayde Creek, and 2.6 mi southeast of Addicks.

DRAINAGE AREA.--293 mi², unadjusted for basin boundary changes.

PERIOD OF RECORD.--August 1945 to current year.
Water-quality records.--Chemical, biochemical, and pesticide analyses: August 1970 to September 1982.

REVISED RECORDS.--WSP 1922: Drainage area.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 1.40 ft below National Geodetic Vertical Datum of 1929, 1973 adjustment; records unadjusted to land-surface subsidence. Prior to Feb. 2, 1948, water-stage recorder at bridge on natural channel 1,200 ft to right at same datum. Feb. 2 to May 21, 1948, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges including backwater affected days: Oct. 1-15, Oct. 28, Nov. 11, Nov. 13 to Mar. 6, May 1, June 8, and Sept. 6. Records good except those for estimated daily discharges, which are poor. Flood flow regulated by Barker and Addicks Reservoirs (stations 08072500 and 08073000) 3.2 and 3.0 mi upstream, respectively (total capacity 315,900 acre-ft). Extreme low flow is sustained by drainage from irrigated lands, and minor sewage effluent.

AVERAGE DISCHARGE.--41 years, 214 ft³/s, 155,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,200 ft³/s Aug. 29, 1945, gage height, 81.23 ft, former site; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1896, 85.6 ft in December 1935, adjusted to former site from floodmark 0.5 mi downstream, on basis of slope of flood of Aug. 29, 1945, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,090 ft³/s (adjusted for backwater) Nov. 11 at 1630 hours (gage height, 65.84 ft); minimum daily, 17 ft³/s Oct. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	190	486	500	37	22	25	27	200	505	433	37	59
2	500	464	640	32	20	25	25	366	507	69	37	44
3	270	342	830	30	100	80	23	352	301	55	122	39
4	55	203	840	31	400	200	23	137	35	44	216	35
5	45	73	950	32	220	150	24	48	39	40	230	39
6	35	51	1350	31	200	70	24	42	55	39	215	140
7	25	41	1330	30	250	39	26	39	36	40	118	48
8	20	39	1300	70	350	33	27	35	310	78	69	153
9	17	44	1280	120	250	30	28	35	98	67	58	403
10	20	38	1240	160	300	29	98	51	489	163	81	529
11	19	850	1300	100	200	29	181	81	705	64	80	347
12	45	496	730	65	140	224	58	50	318	52	56	295
13	100	380	750	55	110	106	35	40	797	41	53	56
14	90	520	1150	45	100	40	30	36	776	38	48	62
15	300	530	1130	55	90	31	28	43	792	103	39	43
16	37	390	1090	60	70	29	25	52	762	106	40	59
17	289	320	1070	60	55	28	24	59	938	62	42	50
18	550	400	1050	80	50	28	23	128	789	45	38	83
19	510	600	1130	85	45	26	30	112	742	43	33	82
20	393	620	1330	65	40	26	69	57	985	34	31	75
21	437	700	1300	50	38	25	48	43	1120	33	33	83
22	431	950	1250	40	36	25	35	37	1070	32	29	83
23	441	940	1200	35	35	24	30	36	1060	32	318	83
24	336	1100	1000	35	35	25	27	32	1030	34	374	55
25	280	840	340	33	32	23	27	33	872	33	321	40
26	244	410	70	32	30	23	25	53	44	33	133	34
27	117	430	55	30	28	24	25	103	441	35	149	32
28	120	180	45	35	26	24	31	261	986	39	118	40
29	49	270	35	31	---	25	37	236	930	37	33	98
30	51	390	40	28	---	24	32	73	886	35	29	45
31	239	---	40	25	---	28	---	361	---	38	28	---
TOTAL	6255	13097	26365	1617	3272	1518	1145	3231	18418	1997	3208	3234
MEAN	202	437	850	52.2	117	49.0	38.2	104	614	64.4	103	108
MAX	550	1100	1350	160	400	224	181	366	1120	433	374	529
MIN	17	38	35	25	20	23	23	32	35	32	28	32
AC-FT	12410	25980	52290	3210	6490	3010	2270	6410	36530	3960	6360	6410

CAL YR 1985 TOTAL 102597 MEAN 281 MAX 1450 MIN 14 AC-FT 203500
WTR YR 1986 TOTAL 83357 MEAN 228 MAX 1350 MIN 17 AC-FT 165300

08073600 BUFFALO BAYOU AT WEST BELT DRIVE, HOUSTON, TX

LOCATION.--Lat 29°45'43", long 95°33'27", Harris County, Hydrologic Unit 12040104, at downstream side of bridge on West Belt Drive in west Houston, 100 ft downstream from Rummel Creek, 3.5 mi downstream from station 08073500, and 3.7 mi upstream from station 08073700.

DRAINAGE AREA.--307 mi², unadjusted for basin boundary changes.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1971 to current year.

GAGE.--Water-stage recorders and crest-stage gage. Datum of gage is 0.67 ft below National Geodetic Vertical Datum of 1929, 1973 adjustment. Telemetry located at station.

REMARKS.--Estimated daily discharges: June 11-18, and Aug. 15-22. Records good except those for estimated daily discharges, which are fair. Stage discharge relationship affected by seasonal vegetal growth during most years. High-water flow is a combination of regulated flow from Barker and Addicks Reservoirs (08072500 and 08073000, located 10.1 and 103 mi respectively) and runoff from highly urbanized area below these reservoirs. Low flow is mostly sustained by sewage effluent.

AVERAGE DISCHARGE.--15 years, 313 ft³/s, 226,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,350 ft³/s Aug. 31, 1981 (gage height, 64.58 ft); minimum daily, 25 ft³/s Nov. 21, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,930 ft³/s Nov. 11 at 1900 hours (gage height, 57.44 ft); minimum daily (estimated), 37 ft³/s Oct. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	227	515	587	63	53	55	55	428	512	623	65	136
2	533	580	682	61	47	57	53	500	512	146	67	108
3	295	404	884	60	200	114	51	448	378	117	169	96
4	84	282	891	62	607	321	49	232	67	91	358	80
5	73	140	1010	64	274	248	47	92	70	66	412	93
6	63	103	1380	62	240	121	45	75	120	59	309	457
7	50	76	1370	62	316	83	49	64	52	83	212	158
8	46	69	1350	102	435	71	52	56	593	158	140	174
9	37	89	1310	162	289	66	61	53	194	137	119	431
10	42	70	1270	222	389	63	184	117	492	231	163	590
11	41	1060	1540	142	299	63	255	128	800	140	139	416
12	75	1030	764	96	221	325	124	84	300	111	107	380
13	159	462	780	81	139	198	74	57	900	83	92	148
14	138	551	1220	76	131	107	59	47	887	74	79	138
15	419	566	1170	87	123	76	53	56	900	140	83	102
16	63	440	1130	94	101	71	47	78	840	193	80	122
17	253	352	1110	94	84	69	44	103	1000	134	80	115
18	575	451	1090	112	81	68	41	174	950	98	74	165
19	545	671	1170	119	73	61	48	164	875	85	66	157
20	439	650	1370	97	72	55	160	99	1090	68	61	131
21	560	771	1350	84	70	52	100	65	1310	60	64	178
22	541	1010	1310	74	68	53	66	52	1240	59	61	162
23	506	996	1250	66	66	50	51	48	1220	62	479	284
24	402	1650	1040	66	67	50	47	46	1180	64	439	162
25	338	967	376	65	65	47	45	48	1110	61	403	97
26	301	444	103	62	61	46	42	73	108	61	234	89
27	187	521	87	59	58	47	41	176	426	63	201	77
28	305	213	75	64	57	48	53	306	1110	72	212	123
29	116	306	69	61	---	47	77	295	1060	66	78	179
30	102	586	70	56	---	49	65	132	1020	64	63	107
31	252	---	70	55	---	57	---	408	---	69	64	---
TOTAL	7767	16025	27878	2630	4686	2838	2138	4704	21316	3538	5173	5655
MEAN	251	534	899	84.8	167	91.5	71.3	152	711	114	167	189
MAX	575	1650	1540	222	607	325	255	500	1310	623	479	590
MIN	37	69	69	55	47	46	41	46	52	59	61	77
AC-FT	15410	31790	55300	5220	9290	5630	4240	9330	42280	7020	10260	11220

CAL YR 1985 TOTAL 121981 MEAN 334 MAX 1650 MIN 37 AC-FT 241900
WTR YR 1986 TOTAL 104348 MEAN 286 MAX 1650 MIN 37 AC-FT 207000

08073600 BUFFALO BAYOU AT WEST BELT DRIVE, HOUSTON, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: June 1978 to current year. Chemical and biochemical analyses: June 1978 to August 1986. Pesticide analyses: June 1978 to March 1983. Sediment analyses: May 1979 to August 1986.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1979 to September 1981.
WATER TEMPERATURES: June 1979 to September 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 922 microsiemens June 25, 1979; minimum daily, 78 microsiemens Aug. 31, 1981.
WATER TEMPERATURE: Maximum daily, 30.5°C July 1, 1978; minimum daily, 1.0°C Nov. 27, 1980.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)
NOV												
04...	1040	314	344	6.90	16.5	83	8.7	88	3.6	310	240	78
FEB												
04...	1210	408	383	7.50	19.0	130	7.0	76	12	22	110	89
MAY												
06...	1125	87	680	7.40	25.5	32	7.2	88	9.1	K2	320	120
AUG												
05...	1045	298	438	7.50	26.5	230	6.5	80	9.6	5900	880	99

DATE	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
NOV												
04...	0	24	4.2	39	2	6.4	89	22	41	0.2	18	216
FEB												
04...	0	28	4.6	41	2	5.1	90	31	44	0.2	11	220
MAY												
06...	0	38	6.9	83	3	7.2	183	28	76	0.3	19	384
AUG												
05...	0	31	5.1	47	2	6.1	102	22	49	0.7	14	266

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)
NOV												
04...	220	1.18	0.42	1.60	0.28	0.23	0.42	0.7	1.10	0.94	0.93	2.9
FEB												
04...	230	1.71	0.09	1.80	0.74	0.74	1.5	2.2	1.70	1.40	1.30	4.0
MAY												
06...	390	1.70	1.70	3.40	2.60	2.80	1.5	4.1	3.60	3.40	3.30	10
AUG												
05...	240	2.38	0.22	2.60	0.73	0.74	1.3	2.0	2.80	0.95	1.20	3.7

DATE	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)
NOV												
04...	71	60	92	130	4	120	<0.5	<1	<1	<3	3	200
FEB												
04...	246	271	82	210	4	100	<0.5	<1	<1	<3	5	120
MAY												
06...	48	11	98	--	--	--	--	--	--	--	--	--
AUG												
05...	498	401	79	100	4	120	1	3	<1	<3	4	44

DATE	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
NOV											
04...	<1	9	9	<0.1	<10	2	<1	<1	190	<6	12
FEB											
04...	3	5	29	<0.1	<10	<1	<1	<1	230	<6	42
MAY											
06...	--	--	--	--	--	--	--	--	--	--	--
AUG											
05...	<5	13	6	<0.1	<10	2	<1	<1	220	<6	10

08073700 BUFFALO BAYOU AT PINEY POINT, TX

LOCATION.--Lat 29°44'48", long 95°31'24", Harris County, Hydrologic Unit 12040104, on right bank at upstream side of bridge on Piney Point Road, village of Piney Point, 3.7 mi downstream from Rummel Creek, 7.2 mi downstream from gage near Addicks (station 08073500), and 12.5 mi upstream from gage at Houston (station 08074000).

DRAINAGE AREA.--317 mi^2.

PERIOD OF RECORD.--October 1963 to September 1976 and October 1984 to current year. October 1976 to September 30, 1984 (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is 1.35 ft below National Geodetic Vertical Datum of 1929, 1973 adjustment.

REMARKS.--Estimated daily discharge: Feb. 13. Records good. High water flow is a combination of regulated flow from Barker and Addicks Reservoirs (stations 08072500 and 08073000, located 14.0 and 13.8 mi upstream from gage respectively) and runoff from highly urbanized area below these reservoirs. Low flow is mostly sustained by sewage effluent. Gage-height telemeter at station.

AVERAGE DISCHARGE.--15 years (water years 1964-76, 1985-86), 272 ft^3/s (197,100 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge (estimated), 5,700 ft^3/s Aug. 31, 1981 (gage height, 57.20 ft, from floodmark); minimum daily, 6.0 ft^3/s Dec. 6, 7, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 3,090 ft^3/s Nov. 11 at 2030 hours (gage height, 50.70 ft); minimum daily, 51 ft^3/s Apr. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	186	517	609	84	63	61	59	449	507	612	75	137
2	531	629	670	80	58	61	57	458	523	165	75	112
3	310	423	907	79	281	94	56	409	410	132	149	95
4	109	297	917	78	836	318	55	227	96	113	362	83
5	90	145	1000	78	295	241	54	95	90	95	453	94
6	83	117	1400	77	255	121	52	81	143	91	328	527
7	74	96	1420	74	292	82	55	75	90	96	211	245
8	69	88	1390	100	451	72	57	69	651	138	164	161
9	68	99	1360	149	285	68	68	68	258	142	162	424
10	66	90	1330	217	390	65	179	140	458	215	360	614
11	65	1170	1780	141	309	65	224	127	964	154	264	438
12	92	1300	946	97	220	302	122	98	301	116	139	416
13	169	454	783	86	160	199	75	77	792	92	118	190
14	148	559	1240	81	129	107	64	70	783	81	122	138
15	559	579	1220	84	117	79	60	81	828	126	99	112
16	91	453	1170	90	99	72	55	93	778	192	93	143
17	218	342	1140	90	83	68	53	114	961	133	92	123
18	626	407	1130	97	80	69	51	178	910	98	85	162
19	567	685	1170	107	75	64	54	162	771	89	77	163
20	458	669	1410	90	73	60	158	111	925	83	71	128
21	535	755	1390	82	72	60	97	82	1210	77	74	195
22	618	1040	1360	76	70	61	71	72	1110	74	72	170
23	525	1030	1300	72	69	59	61	67	1090	75	462	348
24	427	1700	1130	71	69	58	56	65	1050	75	429	209
25	346	1340	474	71	68	56	55	64	1030	74	408	108
26	300	415	143	69	65	55	54	80	180	71	254	113
27	189	600	128	66	63	55	52	242	331	73	183	92
28	384	204	106	67	62	56	57	298	968	78	228	172
29	149	251	93	67	---	56	71	305	938	78	88	190
30	125	597	90	64	---	55	64	151	887	72	73	119
31	244	---	88	61	---	59	---	330	---	78	79	---
TOTAL	8421	17051	29294	2745	5089	2898	2246	4938	20033	3788	5849	6221
MEAN	272	568	945	88.5	182	93.5	74.9	159	668	122	189	207
MAX	626	1700	1780	217	836	318	224	458	1210	612	462	614
MIN	65	88	88	61	58	55	51	64	90	71	71	83
AC-FT	16700	33820	58100	5440	10090	5750	4450	9790	39740	7510	11600	12340

CAL YR 1985 TOTAL 127647 MEAN 350 MAX 1780 MIN 52 AC-FT 253200
WTR YR 1986 TOTAL 108573 MEAN 297 MAX 1780 MIN 51 AC-FT 215400

08074000 BUFFALO BAYOU AT HOUSTON, TX

LOCATION.--Lat 29°45'36", long 95°24'30", Harris County, Hydrologic Unit 12040104, on right bank at downstream side of bridge on Shepherd Drive in Houston and 0.8 mi upstream from Waugh Drive.

DRAINAGE AREA.--358 mi², unadjusted for basin boundary changes.

PERIOD OF RECORD.--May 1936 to September 1957, October 1957 to December 1961 (high-water records and discharge measurements), January 1962 to September 1975, October 1975 to current year (high-water records and discharge measurements).

Water-quality records.--Chemical, biochemical, and pesticide analysis: October 1968 to September 1981.

REVISED RECORDS.--WSP 1732: Drainage area (former site).

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 1.36 ft below National Geodetic Vertical Datum of 1929, 1973 adjustment; records unadjusted for land-surface subsidence. Prior to June 19, 1936, nonrecording gage, and June 19, 1936, to Jan. 16, 1962, water-stage recorder at site 0.8 mi downstream at 4.08-foot lower datum. Jan. 17, 1962, to Sept. 30, 1973, auxiliary water-stage recorder 0.8 mi downstream. Water-stage recorder at Main Street (station 08074600) used as auxiliary gage after Sept. 30, 1973.

REMARKS.--No estimated daily discharges. Records fair. Although floodflows are regulated by Barker and Addicks Reservoirs (stations 08072500 and 08073000) located 26.3 and 26.8 mi upstream, respectively, flood peaks from urbanized areas below these reservoirs are often independent of the regulation. Discharge is computed using a stage-fall-discharge relationship for all storms that produce peak discharges above 1,500 ft³/s. Discharges below 1,000 ft³/s are computed or estimated following designated storm periods only. Low flow is sustained mostly by sewage effluent from Houston suburbs. Gage heights are affected by tides, backwater from Whiteoak Bayou, and other streams. Telemetry at station.

AVERAGE DISCHARGE.--8 years (water years 1936-44) unregulated, 272 ft³/s, 197,100 acre-ft/yr; 26 years (water years 1944-57, 1962-75) regulated, 274 ft³/s, 198,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,900 ft³/s Aug. 30, 1945 (gage height), 28.82 ft, at site 0.8 mi downstream at present datum; minimum daily, 1.3 ft³/s May 24, 1939, Nov. 5, 1950, occurred prior to urban development and accompanying sewage effluent releases.

EXTREMES OUTSIDE PERIOD OF RECORD.--All flood data at site 0.8 mi downstream at present datum. Maximum gage height since at least 1835, 49.0 ft Dec. 9, 1935 (discharge, 40,000 ft³/s); furnished by engineer for Harris County. Flood of May 31, 1929, reached a gage height of 43.5 ft (discharge, 19,000 ft³/s), at bridge on Capitol Avenue, affected by bridge; information furnished by the city of Houston.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,670 ft³/s Nov. 24 at 2300 hours; maximum gage height, 20.81 ft Nov. 24 at 2200 hours; minimum discharge not determined (affected by tides).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---		---				---		---	---
2	---	---	---		---				---		---	---
3	---	---	---		189				---		---	---
4	---	---	---		2150				630		---	---
5	---	---	---		492				258		---	---
6	---	---	1360		---				486		---	970
7	---	---	1500		---				164		---	834
8	---	---	1480		---				1180		---	---
9	---	---	1440		---				855		---	---
10	---	---	1410		---				347		378	---
11	---	1400	2840		---				1870		848	---
12	---	2850	2020		---				628		---	---
13	---	578	870		---				695		---	---
14	---	---	1110		---				833		---	---
15	1010	---	1240		---				1030		---	---
16	250	---	1190		---				1050		---	---
17	---	---	1160		---				1230		---	---
18	---	---	1140		---				1170		---	---
19	---	---	1120		---				927		---	---
20	---	---	1380		---				990		---	---
21	---	---	1440		---				1350		---	---
22	---	1040	1400		---				1260		---	---
23	763	1140	1320		---				1200		---	---
24	635	2230	1200		---				1120		---	---
25	---	3360	670		---				1100		---	---
26	---	494	---		---				521		---	---
27	---	---	---		---				---		---	---
28	---	---	---		---				---		---	---
29	---	---	---		---				---		---	---
30	---	---	---		---				---		---	---
31	---	---	---		---				---		---	---
TOTAL	---	---	---		---				---		---	---
MEAN	---	---	---		---				---		---	---
MAX	---	---	---		---				---		---	---
MIN	---	---	---		---				---		---	---
AC-FT	---	---	---		---				---		---	---

CAL YR 1985	TOTAL -	MEAN -	MAX -	MIN -	AC-FT -
WTR YR 1986	TOTAL -	MEAN -	MAX -	MIN -	AC-FT -

08074145 BINGLE ROAD STORM SEWER AT HOUSTON, TX
(Flood-hydrograph partial-record station)

LOCATION.--Lat 29°51'31", long 95°29'09", Harris County, Hydrologic Unit 12040104, over a 60-inch storm sewer in the center median at Bingle Road and 3,000 ft north of the station Cole Creek at Deihl Road, Houston (08074150).

DRAINAGE AREA.--0.21 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1980 to current year.

GAGE.--Flood-hydrograph, rainfall recorder, and crest-stage gage. Datum of gage is arbitrary.

REMARKS.--Additional storm rainfall-runoff data for this site can be obtained from the reports "Hydrologic Data for Urban Studies in the Houston, Texas Metropolitan Area."

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge not determined, pending better rating definition; maximum gage height, 13.97 ft Aug. 31, 1981, is a recorded pressure head in the access pipe and exceeds gage height for full pipe flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base gage height of 11.00 ft and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 24	1347	(a)	b12.57	June 17	1310	(a)	b13.27
June 8	1235	(a)	*b13.72	Sept. 6	1240	(a)	b11.03

a Discharge not determined; pending better rating definition.
b Recorded pressure head; gage height for full pipe flow exceeded.

Minimum daily discharge not determined.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical, biochemical, and pesticide analyses: May 1980 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV												
11-11	1200	14	85	--	--	60	58	--	--	4.4	--	--
MAY												
01-01	0315	7.0	72	--	--	20	3.0	--	--	5.7	--	--
JUN												
03...	0955	0.16	887	6.90	24.5	8	2.3	1.8	22	1.2	290	850
SEP												
15-15	1800	3.5	120	--	--	30	16	--	--	5.3	--	--

DATE	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
NOV												
11-11	29	0	10	1.0	4.0	0.3	3.2	30	9.1	3.0	<0.1	4.2
MAY												
01-01	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
03...	250	0	72	18	110	3	1.7	365	23	61	0.7	28
SEP												
15-15	--	--	--	--	--	--	--	--	--	--	--	--

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	SOLIDS, VOLATILE, SUSPENDED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DISSOLVED (UG/L AS AS)
NOV												
11-11	52	243	45	0.18	0.02	0.20	0.07	0.73	0.8	0.20	10	--
MAY												
01-01	--	99	24	0.37	0.03	0.40	0.16	0.74	0.9	0.13	12	--
JUN												
03...	530	6	6	0.19	0.01	0.20	0.09	0.21	0.3	0.08	3.7	<1
SEP												
15-15	--	47	10	0.77	0.03	0.80	0.04	0.66	0.7	0.50	12	--

08074145 BINGLE ROAD STORM SEWER AT HOUSTON, TX--Continued
(Flood-hydrograph partial-record station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV											
11-11	--	--	--	--	--	--	--	--	--	--	--
MAY											
01-01	--	--	--	--	--	--	--	--	--	--	--
JUN											
03...	390	<1	<10	1	7	<5	83	<0.1	<1	<1	36
SEP											
15-15	--	--	--	--	--	--	--	--	--	--	--

SAN JACINTO RIVER BASIN

08074150 COLE CREEK AT DEIHL ROAD, HOUSTON, TX

LOCATION.--Lat 29°51'04", long 95°29'16", Harris County, Hydrologic Unit 12040104, on downstream side of bridge at Deihl Road in northwest Houston and 1.8 mi upstream from mouth.

DRAINAGE AREA.--7.50 mi². Prior to Oct. 1, 1976, 8.05 mi². Prior to Oct. 1, 1979, 7.33 mi². Drainage area changes are the result of drainage ditch relocations and extensions.

PERIOD OF RECORD.--April 1964 to current year. Gage at temporary location 1.0 mi downstream at Antoine Drive May 18, 1965, to Sept. 1, 1966, due to bridge construction and channel rectification.

REVISED RECORDS.--WRD TX-74-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is National Geodetic Vertical Datum of 1929, 1957 adjustment; unadjusted for land-surface subsidence.

REMARKS.--No estimated daily discharges. Records fair. There are no diversions above station. Stage discharge relationship is affected by seasonal vegetal growth during most years. Low flow is partly sustained by sewage effluent from Houston suburbs. Recording rain gage located at station. Several observations of water temperature were made during the year. Telemetry is owned by Harris County Flood Control District and is also located at station.

AVERAGE DISCHARGE.--22 years, 8.08 ft³/s, 5,850 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,020 ft³/s Mar. 20, 1972 (elevation, 78.60 ft); no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Elevation (ft)	Date	Time	Discharge (ft³/s)	Elevation (ft)
Nov. 24	1600	*850	*76.24	June 8	1300	728	75.79
Dec. 11	1230	476	74.16	June 17	1430	656	75.49
Feb. 3	2030	412	73.80	Sept. 6	1300	468	74.51

Minimum daily discharge, 0.44 ft³/s Aug. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	8.0	5.7	1.9	1.4	1.1	1.1	82	2.6	1.8	.53	3.0
2	2.9	22	3.0	1.9	1.3	1.2	1.1	16	1.2	1.5	.48	3.6
3	2.4	9.0	2.8	1.7	61	13	2.2	4.6	1.4	1.0	.44	2.0
4	2.3	5.1	2.6	1.8	91	12	1.8	1.3	2.6	.73	.48	2.0
5	2.1	4.2	2.2	1.6	14	2.0	1.1	1.0	73	.65	29	1.4
6	2.1	4.1	2.3	1.6	8.8	1.1	.86	1.1	100	14	20	104
7	2.0	4.7	2.4	1.5	4.6	.87	.80	.89	12	28	3.5	19
8	2.2	4.5	2.0	4.6	3.5	.85	.79	.78	190	4.7	1.1	3.5
9	2.3	4.4	2.0	5.9	71	.88	.70	.74	78	1.6	1.3	3.1
10	2.6	4.3	2.1	9.2	15	.79	17	6.3	59	1.0	6.3	28
11	2.9	79	206	2.3	6.7	.97	3.9	3.8	87	.60	14	14
12	51	20	88	1.9	4.0	34	1.1	1.3	40	.52	2.5	2.8
13	27	5.0	24	1.7	2.7	2.8	.70	.87	9.6	.49	.76	2.1
14	5.5	6.2	6.3	1.6	2.7	2.7	.58	.85	4.0	.52	1.2	3.9
15	59	21	3.9	1.8	1.9	1.3	.73	2.4	15	48	.68	11
16	4.9	11	3.2	1.7	1.9	.99	.65	1.8	11	16	.74	18
17	3.2	4.9	5.7	1.7	1.7	.94	.61	8.4	115	1.5	.53	26
18	8.8	3.1	7.2	1.5	1.5	1.0	.65	9.9	27	1.0	.54	65
19	39	5.2	3.1	1.4	1.5	.87	1.3	1.9	6.9	.73	1.4	23
20	13	8.5	2.2	1.5	1.5	.86	6.0	2.3	3.7	.87	3.8	4.3
21	40	2.3	2.0	1.3	1.2	.77	.98	.86	1.6	.66	3.6	5.7
22	32	2.2	2.0	1.2	1.2	.69	.75	.81	1.0	1.2	4.4	35
23	6.5	2.1	1.9	1.3	1.2	.85	.72	.94	1.8	1.1	18	19
24	5.2	197	1.8	1.5	1.2	1.0	.66	.81	1.3	2.9	5.8	5.7
25	5.6	69	1.7	1.5	1.2	1.1	.71	1.2	.91	1.9	1.6	3.7
26	4.8	10	1.9	1.2	1.2	1.0	.91	1.8	1.9	.76	1.8	21
27	4.0	21	2.0	1.5	1.1	3.0	.80	21	3.1	.79	10	3.3
28	59	8.2	1.9	2.0	1.0	1.0	3.8	5.8	4.4	.70	2.0	29
29	19	6.4	1.8	1.5	---	1.0	1.5	1.3	.83	.89	1.5	28
30	17	4.4	1.9	1.4	---	.95	.88	23	.72	.59	2.0	4.2
31	14	---	1.7	1.4	---	1.1	---	22	---	.59	2.8	---
TOTAL	447.5	556.8	397.3	64.6	307.0	92.68	55.38	227.75	856.56	137.29	142.78	494.3
MEAN	14.4	18.6	12.8	2.08	11.0	2.99	1.85	7.35	28.6	4.43	4.61	16.5
MAX	59	197	206	9.2	91	34	17	82	190	48	29	104
MIN	2.0	2.1	1.7	1.2	1.0	.69	.58	.74	.72	.49	.44	1.4
AC-FT	888	1100	788	128	609	184	110	452	1700	272	283	980
(††)	5.92	4.09	2.98	.30	1.10	1.08	.79	4.42	8.84	2.85	3.70	5.75

CAL YR 1985 TOTAL 3929.1 MEAN 10.8 MAX 212 MIN 1.1 AC-FT 7790 (††) 42.15
WTR YR 1986 TOTAL 3779.94 MEAN 10.4 MAX 206 MIN .44 AC-FT 7500 (††) 41.82

(††) Rainfall, in inches.

08074400 LAZYBROOK STREET STORM SEWER AT HOUSTON, TX
(Flood-hydrograph partial-record station)

LOCATION.--Lat 29°48'15", long 95°26'04", Harris County, Hydrologic Unit 12040104, over a 54-inch storm sewer 30 ft north of the intersection of Lazybrook Street and West T. C. Jester Boulevard, Houston.

DRAINAGE AREA.--0.13 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1978 to current year.

GAGE.--Flood-hydrograph and rainfall recorder. Datum of gage is 0.10 ft below National Geodetic Vertical Datum of 1929, 1973 adjustment.

REMARKS.--Peak discharge records good. Additional storm rainfall-runoff data for this site for water years 1979-1984 can be obtained from the reports "Hydrologic Data for Urban Studies in the Houston, Texas Metropolitan Area".

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 119 ft^3/s represents full storm sewer discharge and usually occurs many times annually, gage height, 58.09 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 85 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 11	1315	100	unknown	June 17	1255	86	57.51
Nov. 24	1240	98	57.74	Sept. 6	1205	89	57.58
June 15	1320	*109	*57.93				

Minimum discharge not determined.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical, biochemical, and pesticide analyses: March 1980 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 11-11	1255	9.3	69	--	--	45	10	--	--	4.6	--	--
JUN 03...	0820	0.11	288	6.80	24.5	35	22	0.9	11	14	K21000	3500
JUN 04-04	1153	6.1	88	--	--	30	2.8	--	--	3.9	--	--
JUL 06-06	1510	12	186	--	--	20	2.2	--	--	8.5	--	--

DATE	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
NOV 11-11	19	0	6.0	1.0	5.4	0.6	2.4	20	6.6	5.4	<0.1	3.0
JUN 03...	63	0	22	2.0	31	2	4.3	87	11	27	0.1	8.8
JUN 04-04	--	--	--	--	--	--	--	--	--	--	--	--
JUL 06-06	37	0	12	1.6	20	2	4.0	60	9.2	14	0.1	4.7

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	SOLIDS, VOLATILE, SUSPENDED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DISSOLVED (UG/L AS AS)
NOV 11-11	42	24	6	0.48	0.02	0.50	0.12	0.88	1.0	0.55	9.3	--
JUN 03...	160	147	32	--	<0.01	<0.10	2.00	1.7	3.7	1.80	30	11
JUN 04-04	--	19	10	0.28	0.02	0.30	0.37	1.0	1.4	0.53	10	--
JUL 06-06	100	37	--	0.20	0.10	0.30	1.60	1.8	3.4	1.30	13	--

08074400 LAZYBROOK STREET STORM SEWER AT HOUSTON, TX--Continued
(Flood-hydrograph partial-record station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV											
11-11	--	--	--	--	--	--	--	--	--	--	--
JUN											
03...	51	<1	<10	5	210	<5	62	<0.1	<1	<1	150
JUN											
04-04	--	--	--	--	--	--	--	--	--	--	--
JUL											
06-06	--	--	--	--	--	--	--	--	--	--	--

08074500 WHITEOAK BAYOU AT HOUSTON, TX

LOCATION.--Lat 29°46'30", long 95°23'49", Harris County, Hydrologic Unit 12040104, at downstream side of downstream bridge on Heights Boulevard in Houston, 560 ft downstream from Texas and New Orleans Railroad Co. bridge, 2.4 mi upstream from Little Whiteoak Bayou, and 4.0 mi upstream from mouth.

DRAINAGE AREA.--86.3 mi^2. Prior to Oct. 1, 1976, 84.7 mi^2.

PERIOD OF RECORD.--May 1936 to current year (October 1965 to September 1966, monthly discharge only).

REVISED RECORDS.--WSP 1732: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 7.35 ft below National Geodetic Vertical Datum of 1929; unadjusted for land-surface subsidence. Prior to June 17, 1936, nonrecording gage, and June 17, 1936, to Apr. 28, 1965, water-stage recorder at site 480 ft upstream at same datum.

REMARKS.--Estimated daily discharges: July 15-18 and Sept. 7-19. Records fair except for estimated daily discharges, which are poor. Low flow is partly sustained by industrial waste. No diversion above station. Gage-height telemeter at station.

AVERAGE DISCHARGE.--50 years, 86.8 ft^3/s (62,890 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,300 ft^3/s Mar. 20, 1972 (gage height, 43.50 ft); maximum gage height, 43.60 ft Nov. 13, 1961; no flow for many days during 1965 water year (result of construction dams).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1919, 51.5 ft Dec. 9, 1935, prior to channel rectification, present site and datum (discharge, 14,750 ft^3/s), furnished by the engineer for Harris County. The flood of May 31, 1929, reached a stage of 47.0 + 0.5 ft, prior to channel rectification, present site and datum discharge, 9,360 ft^3/s), computed on basis of current-meter measurement at stage 1.0 ft below crest, furnished by city of Houston.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 11	1500	6,050	29.79	Feb. 3	2130	4,830	27.95
Nov. 24	1800	*10,900	*36.16	June 8	1430	7,060	31.23
Dec. 11	1300	4,840	27.97	Sept. 6	1800	4,680	27.71

Minimum daily discharge, 30 ft^3/s on many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	121	109	158	41	38	36	36	784	139	40	30	238
2	43	272	80	41	38	37	36	429	52	60	30	97
3	36	128	54	41	666	201	38	81	41	43	31	55
4	36	52	51	41	1230	294	36	41	429	37	103	43
5	35	43	47	40	212	46	35	38	824	35	404	47
6	34	42	45	40	200	38	34	36	796	281	268	1150
7	36	39	44	41	71	38	35	35	258	394	66	300
8	41	39	42	96	54	37	35	34	1970	113	51	100
9	32	38	42	116	407	38	37	36	761	263	51	50
10	32	37	41	184	168	37	243	148	762	61	288	300
11	32	1320	2150	51	71	38	103	66	1040	43	272	80
12	229	410	1130	44	58	456	40	38	332	42	82	60
13	227	78	471	42	52	85	37	33	187	34	35	300
14	469	147	198	43	49	68	36	33	248	31	34	100
15	732	239	122	41	45	43	36	43	621	550	51	70
16	117	149	92	41	44	38	36	39	719	120	32	100
17	121	59	72	44	44	41	36	165	796	50	31	200
18	161	48	73	42	42	43	38	178	220	33	33	800
19	687	47	63	42	41	40	36	43	113	31	33	415
20	439	52	55	40	40	36	193	34	204	30	35	63
21	406	41	49	39	39	36	40	32	220	31	33	98
22	471	38	48	38	37	36	32	31	102	31	95	367
23	232	38	47	37	39	36	34	32	81	31	302	319
24	67	3160	43	38	40	35	33	31	56	31	190	115
25	139	1190	42	38	38	34	32	61	63	32	52	46
26	61	303	41	38	37	34	33	43	78	31	45	189
27	38	482	44	40	38	34	34	413	93	30	68	59
28	851	233	42	38	37	34	104	243	59	32	43	182
29	332	101	42	38	---	35	41	53	40	31	37	246
30	279	89	41	36	---	35	37	231	40	31	35	52
31	210	---	41	35	---	38	---	576	---	30	80	---
TOTAL	6746	9023	5510	1526	3875	2077	1576	4080	11344	2632	2940	6241
MEAN	218	301	178	49.2	138	67.0	52.5	132	378	84.9	94.8	208
MAX	851	3160	2150	184	1230	456	243	784	1970	550	404	1150
MIN	32	37	41	35	37	34	32	31	40	30	30	43
AC-FT	13380	17900	10930	3030	7690	4120	3130	8090	22500	5220	5830	12380

CAL YR 1985 TOTAL 57834 MEAN 158 MAX 3160 MIN 29 AC-FT 114700
WTR YR 1986 TOTAL 57570 MEAN 158 MAX 3160 MIN 30 AC-FT 114200

08074600 BUFFALO BAYOU AT MAIN STREET, HOUSTON, TX

LOCATION.--Lat 29°45'54", long 95°21'32", Harris County, Hydrologic Unit 12040104, on left bank at mouth of Whiteoak Bayou at upstream side of Main Street viaduct in Houston and 3.2 mi downstream from station 08074000.

DRAINAGE AREA.--469 mi².

PERIOD OF RECORD.--January 1962 to current year. (Gage removed for bridge repairs April 5, 1982 to Dec. 2, 1983).

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 1.47 ft below National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers), 1973 adjustment; unadjusted for land-surface subsidence.

REMARKS.--Records good. Most days are influenced by tidal fluctuations. Gage heights during rises reflect releases from Barker and Addicks Reservoirs (stations 08072500 and 08073000 respectively) or runoff from urban areas. Telemetry at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 23.6 ft June 13, 1973; minimum recorded, -3.5 ft Jan. 13, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum gage height since at least 1835, 38.5 ft Dec. 9, 1935, present site and datum, unadjusted for land-surface subsidence.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 17.0 ft Nov. 24 at 2000 hours; minimum (estimated), -0.5 ft Oct. 30.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	4.1	2.6	4.5	2.3	5.0	2.2	3.2	2.2	4.0	2.7	3.2	1.6
2	4.4	3.2	4.8	3.0	3.5	1.5	3.8	2.4	3.8	2.2	3.6	1.8
3	4.5	3.0	4.2	2.4	4.4	3.3	3.8	2.8	11.1	2.3	3.7	1.4
4	4.4	2.8	3.9	2.2	4.9	3.2	4.0	2.7	11.1	4.3	3.6	1.1
5	3.8	1.8	3.8	2.3	4.2	2.2	3.2	.8	4.7	2.4	3.3	1.1
6	3.9	1.9	4.0	2.3	3.7	2.5	4.3	2.1	4.1	1.7	3.6	1.5
7	4.3	2.6	3.4	2.1	4.4	3.4	4.3	2.1	4.3	2.1	3.7	1.7
8	5.0	3.0	4.3	2.1	4.4	3.0	3.8	1.8	4.4	2.5	4.1	2.4
9	4.8	3.3	4.6	3.3	4.6	3.0	3.8	1.6	3.9	2.2	4.1	2.7
10	4.7	2.9	4.6	3.3	4.8	3.0	4.0	1.7	3.7	1.7	3.8	2.7
11	4.4	3.1	12.9	3.1	11.5	4.8	3.6	1.4	2.9	1.3	4.1	2.7
12	4.8	3.0	8.4	4.0	6.7	4.0	3.8	1.8	3.3	2.1	5.1	3.2
13	4.7	3.5	4.9	2.8	4.6	1.1	3.3	1.3	4.0	2.5	4.1	2.5
14	6.5	3.8	4.9	3.2	3.4	1.5	3.0	1.6	4.1	2.8	4.3	1.8
15	6.0	3.0	4.9	3.0	4.1	2.6	3.1	2.0	3.8	1.8	3.9	2.2
16	4.3	2.4	4.3	2.2	4.1	2.4	3.4	2.8	4.2	2.7	3.7	2.1
17	4.7	3.2	4.4	3.0	3.8	2.4	3.7	2.7	4.1	2.4	4.9	2.3
18	5.3	3.6	4.7	3.4	3.8	2.7	3.6	2.4	3.7	1.9	4.9	3.1
19	5.3	3.8	5.1	3.2	3.7	2.8	3.4	1.8	3.7	2.1	---	1.6
20	5.0	2.9	4.1	2.6	4.0	2.8	3.5	1.8	3.8	2.0	---	1.1
21	4.7	3.7	4.1	2.7	3.9	2.8	3.6	1.9	3.6	1.6	---	1.2
22	5.0	3.2	4.7	3.2	3.8	2.5	3.3	1.5	3.2	1.3	---	2.0
23	6.0	3.2	5.2	4.3	3.8	2.3	3.6	1.4	3.8	1.8	---	2.2
24	4.6	3.7	17.0	3.6	3.8	1.9	4.0	2.3	3.8	2.0	---	2.0
25	4.8	3.5	14.2	4.9	3.2	1.0	4.0	1.7	3.4	1.7	---	2.8
26	5.0	3.9	4.9	3.5	3.5	1.6	3.0	.3	3.7	2.3	4.0	---
27	4.8	2.5	5.1	3.6	3.8	2.0	1.8	---	3.8	1.4	3.4	2.3
28	4.3	.7	4.6	2.7	3.5	1.6	3.2	1.9	2.0	.3	3.3	---
29	1.5	---	4.3	2.6	3.3	1.5	3.2	1.8	---	---	3.7	---
30	.5	---	4.8	3.3	3.9	2.5	3.1	2.0	---	---	4.0	---
31	2.3	.4	---	---	4.0	1.6	3.7	2.6	---	---	4.4	---
MONTH	6.5	.4	17.0	2.1	11.5	1.0	4.3	.3	11.1	.3	5.1	1.1

08074600 BUFFALO BAYOU AT MAIN STREET, HOUSTON, TX--Continued

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	4.2	2.3	5.9	2.8	4.7	3.6	4.3	2.9	3.2	1.5	4.2	2.6
2	4.6	2.1	4.7	2.8	4.2	3.4	4.0	2.6	3.1	1.3	4.5	2.4
3	5.6	3.4	4.4	3.0	4.3	2.9	3.4	1.6	3.8	1.3	4.2	2.9
4	5.5	3.6	4.3	3.0	7.7	2.8	3.6	1.6	4.0	1.7	4.1	2.8
5	4.6	3.2	4.8	3.7	8.7	3.2	4.0	2.5	4.9	2.3	3.8	2.5
6	4.2	2.8	4.6	3.5	8.7	3.3	5.6	1.9	4.2	2.3	9.6	2.6
7	3.9	2.9	4.8	3.2	4.6	2.6	4.7	1.9	3.8	2.3	5.1	2.9
8	3.7	2.7	4.8	3.2	12.3	2.5	3.8	1.8	3.6	2.3	3.8	2.3
9	3.9	2.3	5.1	2.9	6.3	3.7	4.3	[illegible].1	4.0	2.5	4.2	2.7
10	---	---	4.9	3.0	5.3	2.7	4.2	2.2	4.1	2.7	4.5	3.2
11	---	---	4.4	2.7	10.3	3.2	4.1	2.3	4.1	2.1	4.6	2.6
12	---	---	4.2	2.4	4.4	2.4	4.1	2.6	3.7	2.0	4.2	2.0
13	---	---	4.2	2.2	5.4	2.2	4.0	2.8	3.7	2.0	4.7	2.0
14	---	---	5.0	2.3	4.4	2.3	3.9	2.7	4.0	2.3	4.3	2.2
15	---	---	5.4	3.1	7.9	2.6	6.0	2.7	4.0	2.2	4.4	2.6
16	3.8	2.2	5.4	3.7	11.2	2.9	3.6	1.9	3.8	2.0	4.3	2.7
17	4.3	2.4	5.7	3.7	6.8	3.3	3.6	1.9	3.5	1.7	4.7	3.0
18	4.7	3.2	3.8	2.6	4.2	2.6	3.5	1.5	3.1	1.3	4.7	3.4
19	4.8	3.3	3.5	2.2	4.4	2.3	3.6	1.4	3.4	1.2	4.6	3.2
20	4.7	2.1	3.9	2.3	5.0	2.2	3.3	1.1	3.3	1.5	4.6	3.0
21	3.3	1.9	4.3	2.7	4.3	2.4	3.6	1.2	4.1	1.7	4.6	3.0
22	3.5	2.1	4.8	2.7	4.8	2.2	3.6	1.5	4.0	2.3	4.8	3.3
23	4.1	2.6	5.1	3.0	4.4	2.4	3.4	1.5	5.0	3.3	4.7	3.1
24	4.2	2.6	4.8	2.7	4.5	2.4	3.4	1.7	3.9	2.2	4.9	3.2
25	4.4	2.5	5.2	2.3	5.5	2.6	3.4	1.8	3.6	2.3	4.9	3.3
26	4.5	2.3	4.1	1.9	5.2	2.9	3.2	2.0	3.6	2.3	5.2	3.2
27	4.8	2.5	5.0	2.0	4.5	3.0	3.2	2.0	3.6	1.9	4.6	3.0
28	4.5	2.2	3.9	2.0	5.0	2.7	3.0	1.6	4.2	1.8	4.9	3.0
29	4.7	2.3	4.1	2.1	4.8	3.0	3.0	1.6	3.6	2.0	5.3	3.5
30	4.8	2.8	4.4	2.4	4.0	3.0	3.2	1.6	4.0	2.2	5.1	3.8
31	---	---	4.5	3.2	---	---	3.0	1.3	4.7	2.3	---	---
MONTH	5.6	1.9	5.9	1.9	12.3	2.2	6.0	1.1	5.0	1.2	9.6	2.0
YEAR	17.0	.3										

08074700 BUFFALO BAYOU AT 69TH STREET, HOUSTON, TX

LOCATION.--Lat 29°45'15", long 95°17'51", Harris County, Hydrologic Unit 12040104, on left bank at end of remaining segment of 69th Street in Houston, 0.15 mi south of Clinton Drive, 1.1 mi upstream from Turning Basin, 2.8 mi upstream from Brays Bayou, and 4.8 mi downstream from Whiteoak Bayou.

DRAINAGE AREA.--476 mi².

PERIOD OF RECORD.--April 1961 to May 1984, May 1985 to September 1985.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1.73 ft below National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers), 1973 adjustment; unadjusted for land-surface subsidence.

REMARKS.--Records good. Only very large storms or hurricane surge produce gage heights above normal tidal fluctuations.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 15.6 ft Aug. 18, 1983, result of Hurricane Alicia; minimum, -3.5 ft Jan. 13, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum gage height recorded, 6.1 ft Nov. 24 at 1900 hours; minimum (estimated), -1.0 ft Oct. 30.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	4.2	2.7	4.7	2.6	5.2	2.3					---	---
2	4.4	3.2	4.9	3.0	3.7	1.6					---	---
3	4.6	3.1	4.3	2.5	4.8	3.4					---	---
4	4.5	2.9	4.1	2.3	5.1	3.2					---	---
5	3.8	1.9	4.0	2.4	4.4	2.2					---	---
6	4.1	2.8	4.2	2.5	3.7	2.9					---	---
7	4.5	3.2	3.6	2.3	3.4	3.2					---	---
8	5.1	3.3	4.5	2.5	4.4	2.8					---	---
9	4.9	3.2	4.9	3.6	4.6	2.9					---	---
10	4.9	3.1	4.8	3.5	5.0	2.9					---	---
11	4.6	3.2	6.0	3.1	5.3	3.7					---	---
12	4.8	3.2	5.3	3.2	4.2	2.5					---	---
13	4.9	3.6	5.0	2.9	4.2	1.1					---	---
14	5.0	3.8	5.1	3.2	3.6	1.1					---	---
15	4.9	2.5	5.1	2.8	4.4	2.7					---	---
16	4.7	2.5	4.4	2.3	4.4	2.4					---	---
17	4.8	3.4	4.6	3.1	4.2	2.6					5.1	---
18	5.6	3.6	4.9	3.5	4.1	---					4.6	3.4
19	5.3	3.3	5.3	3.1	---	---					3.8	---
20	5.1	3.0	4.0	2.7	---	---					---	---
21	4.8	3.2	4.2	2.9	---	---					3.3	---
22	5.0	3.4	4.8	3.2	---	---					3.9	---
23	5.0	3.5	5.3	4.3	---	---					3.6	---
24	4.8	3.7	6.1	3.6	---	---					3.7	---
25	4.9	3.7	5.2	3.4	---	---					4.3	---
26	5.3	4.1	5.1	3.6	---	---					4.3	3.3
27	5.0	2.7	5.2	3.2	---	---					3.8	---
28	2.7	---	4.7	2.9	---	---					3.6	---
29	.9	---	4.9	2.8	---	---					4.0	---
30	.7	---	5.0	3.4	---	---					4.3	---
31	2.6	.5	---	---	---	---					4.8	---
MONTH	5.6	.5	6.1	2.3	5.3	1.1					5.1	3.3

08074700 BUFFALO BAYOU AT 69TH STREET, HOUSTON, TX--Continued

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	4.7	---	5.1	3.3			---	---	3.5	1.8	4.6	2.9
2	4.9	---	4.6	---			---	---	3.4	1.7	4.9	2.8
3	5.9	3.7	4.7	3.3			---	---	4.1	1.6	4.6	3.3
4	5.8	3.9	4.7	3.4			---	---	4.2	2.0	4.5	3.1
5	4.9	3.5	5.1	3.9			---	---	4.4	2.5	4.2	2.9
6	4.3	3.3	5.0	3.6			---	---	4.3	2.5	4.7	2.9
7	4.2	3.3	5.2	3.6			4.2	---	4.1	2.7	4.9	3.2
8	4.1	3.2	5.2	3.6			4.1	2.1	4.0	2.6	4.3	2.8
9	4.2	---	5.4	3.3			4.3	2.3	4.2	2.8	4.5	3.0
10	4.5	---	5.0	3.3			4.3	2.3	3.9	3.0	4.8	3.2
11	4.7	---	4.8	3.2			4.3	2.6	4.0	2.4	4.9	2.9
12	4.4	---	4.6	---			4.3	2.9	4.0	2.3	4.6	2.3
13	4.5	---	---	---			4.3	3.0	4.0	2.3	4.5	2.5
14	4.7	---	---	---			4.1	2.9	4.2	2.6	4.6	2.5
15	4.2	---	---	---			4.0	2.4	4.3	2.4	4.7	2.9
16	4.0	---	---	---			3.8	2.1	4.1	2.2	4.5	3.0
17	4.7	---	---	---			3.8	2.0	3.8	2.1	4.9	3.2
18	5.0	3.4	---	---			3.8	1.8	3.4	1.7	4.9	3.6
19	5.1	3.6	---	---			3.8	1.8	3.7	1.5	4.7	3.5
20	4.6	---	---	---			3.6	1.5	3.6	1.9	4.9	3.3
21	3.5	---	---	---			3.9	1.6	4.2	2.0	4.8	3.3
22	3.8	---	---	---			3.9	1.8	4.3	2.5	5.1	3.4
23	4.4	---	---	---			3.7	1.9	4.9	3.2	4.9	3.3
24	4.5	---	---	---			3.6	2.0	4.0	2.4	5.1	3.6
25	4.7	---	---	---			3.6	2.2	3.9	2.5	5.2	3.7
26	4.8	---	---	---			3.4	2.4	3.8	2.5	5.4	3.5
27	5.2	---	---	---			3.4	2.3	3.9	2.2	4.9	3.3
28	4.9	---	---	---			3.4	2.0	4.4	2.2	5.2	3.5
29	5.1	---	---	---			3.3	1.9	3.9	2.3	5.6	3.7
30	5.2	3.3	---	---			3.4	1.7	4.3	2.6	5.4	3.8
31	---	---	---	---			3.3	1.7	4.7	2.7	---	---
MONTH	5.9	3.2	5.4	3.2			4.3	1.5	4.9	1.5	5.6	2.3
YEAR	6.1	.5										

08074710 BUFFALO BAYOU AT TURNING BASIN, HOUSTON, TX.

LOCATION.--Lat 29°44'57", long 95°17'27", Harris County, Hydrologic Unit 12040104, on west bank at Wharf #5, at end of private road, 1.0 mi downstream from station 08074700 Buffalo Bayou at 69th Street in Houston, 1.8 mi upstream from Brays Bayou, and 4.9 mi east of downtown Houston.

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April to September 1986.
pH: April to September 1986.
WATER TEMPERATURE: April to September 1986.
DISSOLVED OXYGEN: April to September 1986.

INSTRUMENTATION.--Beginning March 1986, a four-parameter water-quality monitor records water temperature, DO, pH, and specific conductance continuously at this station.

REMARKS.--Water-quality monitor data was collected from a fixed-point intake located approximately 6.5 ft. below National Geodetic Vertical Datum of 1929.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 18,800 microsiemens Apr. 16; minimum, 220 microsiemens June 17, 18, and July 9.
WATER TEMPERATURE: Maximum, 33.5°C July 3.
DISSOLVED OXYGEN: Maximum, 5.4 mg/L Sept. 7; minimum, 0.1 mg/L on several days during April, May, June, and July.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1												
2												
3												
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31												
MONTH												

08074710 BUFFALO BAYOU AT TURNING BASIN, HOUSTON, TX.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1				---	---	---	2160	1440	1840	---	---	---
2				---	---	---	1940	1140	1600	---	---	---
3				---	---	---	1880	1240	1590	---	---	---
4				---	---	---	---	---	---	---	---	---
5				---	---	---	---	---	---	---	---	---
6				---	---	---	---	---	---	4900	1340	3100
7				---	---	---	---	---	---	6740	2120	4620
8				---	---	---	---	---	---	4920	2140	3450
9				---	---	---	---	---	---	5400	2700	4120
10				---	---	---	---	---	---	6140	2900	4490
11				---	---	---	---	---	---	5780	2420	4400
12				---	---	---	---	---	---	5680	2880	4400
13				---	---	---	---	---	---	5380	3820	4720
14				---	---	---	---	---	---	5060	2960	4220
15				---	---	---	---	---	---	5060	2940	4120
16				---	---	---	18800	1580	10200	4340	2280	3620
17				---	---	---	10200	5700	8080	3520	1940	2770
18				---	---	---	11800	6600	9290	4140	1220	2360
19				---	---	---	11900	6400	10300	3700	1480	2710
20				---	---	---	16600	4400	10700	3540	1820	3060
21				---	---	---	11900	7100	10200	5560	2240	3490
22				---	---	---	11700	10200	11100	5200	2200	3790
23				---	---	---	12100	8060	10300	6580	3380	4530
24				---	---	---	11500	6220	8980	6840	2740	4730
25				2440	1800	2010	10300	6360	8430	9040	2700	5900
26				2440	1740	2120	11300	6220	9190	7780	1800	5410
27				2660	1600	2250	10800	7500	9530	7220	1220	5050
28				2600	1380	2250	11300	6040	8820	5640	1360	3310
29				2480	1580	2030	9560	6080	8390	4760	1560	3390
30				2420	1580	2090	---	---	---	5180	1980	3420
31				2200	1740	2020	---	---	---	3100	720	1600
MONTH				2660	1380	2110	18800	1140	8150	9040	720	3880

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	2640	740	1530	2380	480	1160	15100	10200	12600	16800	10100	13300
2	3620	940	1760	1960	460	1220	15500	10600	13200	17200	12100	14500
3	4980	880	2340	2980	840	2080	16600	8300	13500	16800	10100	13800
4	5160	2560	4040	3200	1420	2460	16300	6280	13100	15500	10300	13600
5	---	---	---	2980	1100	2140	10800	2120	5870	16100	12000	13500
6	---	---	---	2820	780	1810	10500	1480	5620	17300	620	8890
7	---	---	---	1900	640	1170	12700	4100	7920	860	480	634
8	---	---	---	1720	500	1230	11400	6060	9240	5340	940	2320
9	---	---	---	2920	220	1580	13500	8220	10600	5500	1980	3270
10	---	---	---	6260	880	3430	12700	2320	9040	8660	2180	4610
11	---	---	---	4960	2640	4270	9460	1080	3180	7460	2000	5030
12	---	---	---	7560	4180	6140	9400	2940	5880	9140	1400	6270
13	---	---	---	7500	2300	5510	11300	6100	8830	7540	1140	3560
14	---	---	---	8400	4040	6370	13400	8160	10700	5580	1780	3880
15	---	---	---	7520	1340	5730	14900	2060	11600	8300	2080	5960
16	---	---	---	5220	620	2800	16800	8420	12800	10200	5020	7570
17	280	220	245	6220	1900	4060	16000	8320	13100	9100	6220	7880
18	280	220	253	5520	2220	4380	17100	10000	14400	7240	3500	5620
19	360	260	294	6120	2300	4700	17200	12400	15200	7040	3080	4850
20	380	280	313	6340	2560	4900	15500	12000	14200	7340	4420	6110
21	320	280	297	8520	3520	5840	16200	12000	14500	5440	3280	4290
22	300	260	283	9500	4180	7250	16100	12000	13900	7160	1180	4230
23	560	320	403	14800	4060	8710	15200	2260	10200	3320	1880	2500
24	540	340	428	10200	7580	8470	8180	2480	4630	3500	1640	2540
25	640	400	487	---	---	---	11400	2360	7080	4520	2860	3690
26	1960	360	1020	---	---	---	10500	4960	8150	6900	2520	3810
27	4220	820	2650	---	---	---	13100	6000	10200	5100	2880	3760
28	2620	1060	1770	14500	10100	12700	14000	6660	10300	5520	2740	3990
29	2380	760	1260	14900	12000	13500	15200	9420	12800	12200	2400	6270
30	3080	500	1280	14200	10100	12400	16600	10100	14600	15300	9200	12100
31	---	---	---	13500	8020	12300	17500	10300	14500	---	---	---
MONTH	5160	220	1150	14900	220	5300	17500	1080	10700	17300	480	6410

08074710 BUFFALO BAYOU AT TURNING BASIN, HOUSTON, TX.--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1												
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25												
26												
27												
28												
29												
30												
31												
MONTH												

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	22.0	21.5	22.0	23.5	20.0	21.5
2				---	---	---	22.5	22.0	22.0	23.0	22.5	23.0
3				---	---	---	22.5	22.0	22.0	23.5	22.5	23.0
4				---	---	---	---	---	---	25.0	23.0	24.0
5				---	---	---	---	---	---	25.5	24.0	24.5
6				---	---	---	---	---	---	25.5	24.5	24.5
7				---	---	---	---	---	---	26.0	24.5	25.0
8				---	---	---	---	---	---	27.0	25.5	26.0
9				---	---	---	---	---	---	26.5	25.5	26.0
10				---	---	---	---	---	---	26.5	25.5	26.0
11				---	---	---	---	---	---	26.5	25.5	26.0
12				---	---	---	---	---	---	27.0	25.5	26.5
13				---	---	---	---	---	---	27.0	26.0	26.5
14				---	---	---	---	---	---	27.0	26.5	26.5
15				---	---	---	---	---	---	27.0	26.5	26.5
16				---	---	---	23.0	22.5	22.5	26.5	26.5	26.5
17				---	---	---	23.0	22.0	22.5	27.0	26.5	27.0
18				---	---	---	23.0	22.0	22.5	26.5	26.0	26.5
19				---	---	---	23.0	22.0	23.0	26.0	25.5	25.5
20				---	---	---	23.5	21.0	22.5	26.5	25.5	26.0
21				---	---	---	23.5	22.0	23.0	27.0	26.0	26.5
22				---	---	---	23.0	22.5	23.0	27.0	26.0	26.5
23				---	---	---	24.0	20.0	23.0	27.5	26.0	26.5
24				---	---	---	24.0	20.0	22.5	27.5	26.5	27.0
25				21.0	20.5	20.5	24.0	20.0	21.5	27.5	26.5	27.0
26				21.0	20.0	20.5	24.0	20.0	22.0	27.5	27.0	27.0
27				22.0	20.0	20.5	23.0	20.0	20.5	27.5	27.0	27.0
28				21.5	20.5	21.0	24.0	19.5	21.0	27.0	26.0	26.5
29				22.0	20.5	21.5	21.0	20.0	20.5	27.0	26.0	26.5
30				21.5	21.0	21.5	21.5	20.0	20.5	27.5	27.0	27.0
31				22.0	21.5	21.5	---	---	---	27.0	27.0	27.0
MONTH				22.0	20.0	21.0	24.0	19.5	22.0	27.5	20.0	26.0

08074710 BUFFALO BAYOU AT TURNING BASIN, HOUSTON, TX.--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	27.5	26.5	27.0	31.0	26.5	30.0	33.0	31.5	32.0	30.0	29.5	29.5
2	27.5	26.0	27.0	32.5	28.5	30.5	33.0	32.0	32.0	30.0	29.5	29.5
3	28.0	26.5	27.0	33.5	26.5	30.5	32.5	32.0	32.0	30.5	29.5	30.0
4	27.5	22.5	25.5	31.0	27.0	30.0	32.5	31.5	32.0	30.5	30.0	30.0
5	26.0	24.5	25.5	31.5	30.0	30.5	31.5	28.0	30.5	30.5	30.0	30.0
6	26.0	25.5	26.0	31.0	28.5	30.5	30.0	28.0	29.0	30.5	26.5	29.0
7	---	---	---	31.0	27.0	29.0	30.0	28.5	29.5	27.0	26.5	26.5
8	---	---	---	30.0	28.0	29.0	30.5	29.5	30.0	28.0	26.5	27.5
9	---	---	---	30.5	26.5	29.0	31.0	30.0	30.5	28.5	27.5	28.0
10	---	---	---	30.0	28.5	29.5	31.0	29.5	30.5	29.0	28.0	28.5
11	---	---	---	30.5	29.0	30.0	30.0	27.5	29.0	29.5	28.5	29.0
12	---	---	---	30.5	29.5	30.0	29.5	28.0	29.0	29.5	29.0	29.0
13	---	---	---	31.0	30.0	30.5	30.5	29.5	30.0	29.5	29.0	29.0
14	---	---	---	31.0	30.0	30.5	30.5	29.0	30.0	29.5	28.5	29.0
15	---	---	---	31.0	29.0	30.5	31.5	30.0	30.5	30.0	29.0	29.5
16	---	---	---	30.0	28.0	29.5	31.5	31.0	31.0	30.0	29.0	29.5
17	27.5	25.5	27.0	31.0	29.5	30.0	31.5	31.0	31.0	30.0	29.0	29.5
18	28.0	26.5	27.5	31.0	30.0	30.5	32.5	31.0	31.0	30.0	29.5	29.5
19	28.5	27.0	28.0	31.5	30.0	30.5	31.5	31.0	31.5	29.5	28.5	29.0
20	29.0	27.0	28.0	31.0	30.5	31.0	31.5	31.0	31.5	29.5	28.5	29.0
21	30.5	28.0	28.5	31.5	30.5	31.0	31.5	31.0	31.0	29.5	28.5	29.0
22	30.0	28.5	29.0	31.5	30.5	31.0	31.5	30.5	31.0	29.5	28.5	29.0
23	30.5	28.0	29.5	31.5	31.0	31.0	31.0	29.0	30.5	29.5	28.5	28.5
24	31.0	28.5	29.5	31.5	31.0	31.0	29.5	28.5	29.0	29.0	28.0	28.5
25	30.5	29.0	30.0	---	---	---	29.5	28.5	29.0	29.5	28.5	29.0
26	30.5	29.0	29.5	---	---	---	29.5	29.0	29.0	29.5	28.5	29.0
27	31.0	28.5	29.5	---	---	---	30.0	29.5	29.5	30.5	27.5	29.5
28	31.0	29.0	30.5	32.0	31.0	31.5	30.0	29.5	29.5	30.0	29.0	29.5
29	31.0	28.0	30.5	32.0	31.0	31.5	30.0	29.5	30.0	29.5	28.5	29.0
30	33.0	30.0	31.0	32.0	31.5	31.5	30.5	29.5	30.0	29.5	28.0	29.0
31	---	---	---	32.5	31.5	32.0	30.0	29.5	30.0	---	---	---
MONTH	33.0	22.5	28.5	33.5	26.5	30.5	33.0	27.5	30.5	30.5	26.5	29.0

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1												
2												
3												
4												
5												
6												
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8												
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24												
25												
26												
27												
28												
29												
30												
31												
MONTH												

08074710 BUFFALO BAYOU AT TURNING BASIN, HOUSTON, TX.--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	4.6	3.1	4.0	4.7	2.0	2.8
2				---	---	---	4.9	3.5	4.1	4.2	2.0	3.2
3				---	---	---	5.0	3.6	4.3	4.0	2.1	2.9
4				---	---	---	---	---	---	3.0	2.0	2.4
5				---	---	---	---	---	---	3.1	.3	2.6
6				---	---	---	---	---	---	2.8	1.3	2.1
7				---	---	---	---	---	---	3.0	.9	1.9
8				---	---	---	---	---	---	4.0	1.7	2.5
9				---	---	---	---	---	---	3.2	1.1	2.1
10				---	---	---	---	---	---	3.2	.7	1.7
11				---	---	---	---	---	---	1.7	.3	.8
12				---	---	---	---	---	---	1.4	.1	.7
13				---	---	---	---	---	---	1.2	.1	.7
14				---	---	---	---	---	---	2.1	.7	1.3
15				---	---	---	---	---	---	2.7	.7	1.6
16				---	---	---	.7	.3	.5	2.6	1.0	1.8
17				---	---	---	1.7	.4	1.0	3.4	1.9	2.5
18				---	---	---	2.2	.8	1.4	2.8	.3	1.7
19				---	---	---	2.4	1.3	1.7	2.3	.4	1.4
20				---	---	---	3.2	.4	1.6	2.6	.6	1.0
21				---	---	---	.8	.1	.3	2.5	.1	1.1
22				---	---	---	.9	.1	.3	4.0	.9	1.8
23				---	---	---	1.2	.2	.5	3.3	.3	2.0
24				---	---	---	2.6	.1	1.2	4.1	1.0	2.6
25				5.2	4.1	4.7	2.8	.4	1.9	3.8	.5	2.2
26				4.6	3.7	4.1	3.0	.9	1.8	2.9	.6	1.5
27				4.6	3.0	3.5	3.5	1.1	1.9	2.3	.4	1.3
28				4.6	2.8	3.3	2.8	.5	1.8	2.6	.7	1.6
29				4.2	2.7	3.6	2.8	1.4	2.2	2.4	.5	1.4
30				4.6	2.9	3.5	2.9	1.1	2.2	2.2	.4	1.2
31				4.0	3.3	3.6	---	---	---	2.7	1.2	2.1
MONTH				5.2	2.7	3.8	5.0	.1	1.8	4.7	.1	1.8

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	2.2	1.4	1.8	3.4	1.2	2.3	1.1	.9	.9	2.3	1.1	1.7
2	2.2	.9	1.8	2.7	1.2	1.9	1.3	.9	1.0	2.0	1.0	1.4
3	2.5	.7	1.8	2.3	.6	1.3	1.4	1.0	1.1	2.3	1.2	1.8
4	---	---	---	2.5	.5	1.1	1.5	1.0	1.2	2.3	1.6	2.0
5	---	---	---	4.2	.5	1.5	1.5	1.1	1.2	2.4	1.4	1.9
6	---	---	---	3.6	.7	2.0	1.6	1.2	1.4	5.3	.5	2.6
7	---	---	---	3.4	1.4	2.4	1.8	1.2	1.5	5.4	4.2	4.8
8	---	---	---	2.6	.6	1.3	1.9	1.2	1.5	4.5	1.9	3.1
9	---	---	---	2.8	.6	1.6	1.8	1.2	1.5	3.4	1.7	2.7
10	---	---	---	2.6	.9	1.8	1.7	1.3	1.5	3.4	1.5	2.6
11	---	---	---	3.0	1.3	2.1	3.6	.3	2.0	3.3	2.2	2.7
12	---	---	---	3.2	1.6	2.2	2.5	.7	1.5	3.2	1.6	2.2
13	---	---	---	4.8	2.4	3.2	1.5	.5	.9	3.1	1.8	2.5
14	---	---	---	3.8	2.0	2.7	1.8	.7	1.1	3.0	1.8	2.4
15	---	---	---	3.6	1.8	2.5	4.0	.6	1.4	2.4	1.1	1.8
16	---	---	---	4.4	2.0	2.7	2.4	.5	1.5	2.2	1.3	1.8
17	5.2	2.2	4.4	3.0	1.1	1.8	1.7	.6	1.1	1.8	1.2	1.5
18	4.5	2.8	3.6	2.4	.9	1.5	1.9	.6	1.3	2.3	1.2	1.6
19	3.9	2.8	3.4	2.4	1.0	1.6	2.2	.9	1.4	2.4	1.5	2.0
20	3.6	1.9	2.6	2.8	1.2	1.9	2.6	1.2	1.8	2.8	1.6	2.1
21	2.3	1.0	1.8	3.3	2.7	3.0	2.1	1.1	1.6	3.1	1.8	2.3
22	2.4	1.1	1.8	3.1	1.4	2.4	2.7	1.1	1.9	3.2	1.6	2.6
23	2.4	1.3	1.9	3.5	.1	2.2	3.1	1.5	2.1	3.6	2.7	3.1
24	2.7	1.3	2.1	2.9	1.9	2.4	2.5	1.4	1.8	3.5	2.3	2.8
25	2.7	.9	1.9	---	---	---	2.7	1.2	2.0	3.5	2.3	3.1
26	2.2	.2	1.5	---	---	---	2.9	1.4	1.9	3.8	2.5	2.9
27	2.4	.1	1.3	---	---	---	2.1	1.1	1.6	3.4	1.8	2.6
28	2.3	1.1	1.7	1.3	.5	.9	2.0	.8	1.3	3.7	2.6	3.0
29	2.9	1.4	2.1	1.3	.6	.8	1.8	.6	1.1	3.3	1.9	2.7
30	3.2	1.4	2.2	1.2	.7	.9	2.0	1.0	1.4	3.4	2.2	2.8
31	---	---	---	1.3	.8	.9	2.2	1.0	1.5	---	---	---
MONTH	5.2	.1	2.2	4.8	.1	1.9	4.0	.3	1.5	5.4	.5	2.4

08075000 BRAYS BAYOU AT HOUSTON, TX

LOCATION.--Lat 29°41'49", long 95°24'43", Harris County, Hydrologic Unit 12040104, near right bank at downstream side of Main Street Bridge in southwest Houston, 1.6 mi upstream from Harris Gully, and 11.6 mi upstream from Buffalo Bayou.

DRAINAGE AREA.--94.9 mi^2. Prior to October 1976, 88.4 mi^2. Changes due to drainage ditch relocations.

PERIOD OF RECORD.--May 1936 to current year.

REVISED RECORDS.--WSP 1732: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7.16 ft below National Geodetic Vertical Datum of 1929, 1973 adjustment; unadjusted for land-surface subsidence. Prior to June 20, 1936, nonrecording gage, and June 20, 1936, to Nov. 25, 1959, water-stage recorder at site 0.8 mi downstream at same datum.

REMARKS.--Estimated daily discharge: Dec. 20 to May 19. Records good except for estimated daily discharges, which are fair. No diversion above station. Low flow is mostly sewage effluent from Houston suburbs. Gage-height telemeter at station.

AVERAGE DISCHARGE.--50 years, 131 ft^3/s (94,910 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,000 ft^3/s June 15, 1976, and Sept. 19, 1983 (gage height, 52.13 ft); minimum daily, 0.1 ft^3/s Oct. 11, 12, 1937, Mar. 14, Apr. 1, 1958.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1911, 56.0 ft in June 1919 before channel rectification, former site, from information by engineer for city of Houston.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 11	2045	*17,300	*45.26	Feb. 3	2315	6,350	36.52
Dec. 11	1245	7,950	37.64	Sept. 6	1615	8,410	38.09

Minimum daily discharge, 97 ft^3/s July 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	212	180	135	115	120	130	120	1100	105	104	103	188
2	148	575	128	115	120	120	115	600	103	104	103	155
3	137	244	119	115	590	300	115	300	104	110	171	117
4	129	144	115	115	1920	790	115	200	493	101	279	109
5	127	124	119	115	250	180	120	150	297	101	704	109
6	129	120	117	115	255	145	120	130	320	100	248	2350
7	132	120	117	115	150	130	120	120	151	108	187	747
8	131	112	113	190	135	120	115	115	1750	181	128	250
9	129	118	122	250	250	125	250	115	617	120	141	138
10	129	116	119	300	155	125	500	300	370	112	256	259
11	127	4280	3260	130	140	120	220	210	1010	108	306	162
12	131	2870	1120	120	125	300	150	150	251	107	176	124
13	309	339	390	120	115	130	125	120	139	106	115	160
14	401	257	191	120	200	140	115	120	137	105	116	132
15	1450	310	156	120	250	125	110	150	127	178	132	122
16	235	218	141	120	155	125	110	140	540	124	114	169
17	316	145	131	130	130	130	110	260	915	97	105	172
18	532	135	126	125	150	150	115	270	288	101	110	130
19	315	123	122	120	140	135	115	105	137	99	108	143
20	258	117	120	120	130	130	477	104	139	101	102	172
21	463	117	115	120	125	120	261	101	360	101	107	174
22	805	112	115	120	120	120	172	103	217	98	108	209
23	828	116	115	115	120	125	139	103	166	98	789	246
24	403	1130	115	110	115	125	124	100	115	100	391	169
25	369	965	115	115	120	125	116	492	109	100	138	117
26	210	198	115	115	125	130	112	198	110	101	111	264
27	134	575	115	120	125	125	109	423	118	102	120	127
28	1140	261	115	120	125	120	108	190	107	106	123	173
29	446	140	125	150	---	120	108	111	102	105	107	159
30	300	128	120	130	---	125	108	104	104	107	102	120
31	323	---	115	120	---	130	---	111	---	103	165	---
TOTAL	10898	14389	8241	4105	6455	5015	4694	6795	9501	3386	5965	7666
MEAN	352	480	266	132	231	162	156	219	317	109	192	256
MAX	1450	4280	3250	300	1920	790	500	1100	1750	181	789	2350
MIN	127	112	113	110	115	120	108	100	102	97	102	109
AC-FT	21620	28540	16350	8140	12800	9950	9310	13480	18850	6720	11830	15210

CAL YR 1985 TOTAL 94530 MEAN 259 MAX 4280 MIN 96 AC-FT 187500
WTR YR 1986 TOTAL 87112 MEAN 239 MAX 4280 MIN 97 AC-FT 172800

08075400 SIMS BAYOU AT HIRAM CLARKE STREET, HOUSTON, TX

LOCATION.--Lat 29°37'07", long 95°26'45", Harris County, Hydrologic Unit 12040104, on right bank at downstream side of bridge on Hiram Clarke Street in southwest Houston, 12.7 mi upstream from gage Sims Bayou at Houston, and 19.7 mi upstream from mouth.

DRAINAGE AREA.--20.2 mi².

PERIOD OF RECORD.--August 1964 to current year (discharge measurements and supplemental peak discharges only Dec. 6, 1978, to Aug. 31, 1979).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is National Geodetic Vertical Datum of 1929, 1959 adjustment; unadjusted for land-surface subsidence.

REMARKS.--No estimated daily discharges. Records good. Channel bed was lowered 5 to 6 ft during rectification in 1978. Stage discharge relationship is affected by seasonal vegetal growth during most years. No known diversion above station. Low flow is partly sustained by sewage effluent from Houston suburbs. Records furnished by Houston Lighting and Power Co. show that during the current year about 69 acre-ft of ground water was used for cooling purposes then released to the Bayou about 200 ft upstream from this station. Gage-height telemeter at station.

AVERAGE DISCHARGE.--21 years (water years 1965-78, 1980-86), 29.3 ft³/s (21,230 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,660 ft³/s Sept 19, 1983 (elevation, 54.50 ft); maximum elevation, 57.12 ft June 15, 1976, occurred prior to 1978 channel rectification; minimum daily discharge, 1.5 ft³/s July 26, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 11	1745	*4,470	*53.64	Feb. 4	0230	1,960	46.75
Dec. 11	1445	1,760	46.11				

Minimum daily discharge, 9.1 ft³/s Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	30	16	15	13	14	12	26	13	11	11	19
2	19	89	13	14	15	15	13	26	13	11	12	24
3	16	39	12	14	72	23	12	19	11	19	10	13
4	15	19	12	15	658	36	11	15	93	12	11	11
5	17	18	13	15	53	13	12	13	59	11	16	11
6	17	18	12	14	28	14	12	65	44	11	22	168
7	18	16	12	16	21	12	11	33	25	10	16	90
8	17	15	13	20	18	13	11	11	51	11	13	20
9	19	16	13	31	23	12	17	11	60	13	13	12
10	16	16	13	56	21	12	35	20	21	14	13	12
11	17	1500	625	19	18	12	18	18	185	14	52	11
12	19	501	241	16	17	17	11	13	49	11	40	11
13	19	55	84	15	16	13	10	12	38	11	14	14
14	52	40	32	14	15	12	11	11	29	11	13	13
15	180	29	24	14	16	12	9.8	11	27	12	12	14
16	36	20	20	14	15	12	9.7	12	62	12	13	12
17	20	16	18	16	15	12	9.9	18	116	12	13	9.5
18	25	14	18	15	15	11	10	40	26	11	13	9.9
19	46	20	17	14	14	12	10	26	14	11	12	14
20	35	17	18	14	15	11	26	14	12	11	12	14
21	30	12	16	13	14	11	12	11	12	10	16	22
22	45	12	16	12	14	11	10	11	13	10	23	23
23	52	12	16	13	15	12	9.9	11	12	9.9	62	29
24	65	144	15	13	14	12	10	13	12	10	63	18
25	26	73	16	13	14	12	9.7	27	11	10	34	10
26	32	22	14	13	14	12	9.7	29	12	10	16	12
27	21	72	15	12	14	12	10	15	12	10	14	13
28	185	43	17	12	14	11	10	16	12	10	14	10
29	75	19	19	12	---	11	10	13	12	9.8	13	12
30	35	16	16	12	---	12	9.6	13	13	10	14	9.1
31	36	---	15	12	---	12	---	12	---	10	17	---
TOTAL	1234	2913	1401	498	1191	416	372.3	585	1069	348.7	617	660.5
MEAN	39.8	97.1	45.2	16.1	42.5	13.4	12.4	18.9	35.6	11.2	19.9	22.0
MAX	185	1500	625	56	658	36	35	65	185	19	63	168
MIN	15	12	12	12	13	11	9.6	11	11	9.8	10	9.1
AC-FT	2450	5780	2780	988	2360	825	738	1160	2120	692	1220	1310

CAL YR 1985 TOTAL 14800.1 MEAN 40.5 MAX 1500 MIN 8.1 AC-FT 29360
WTR YR 1986 TOTAL 11305.5 MEAN 31.0 MAX 1500 MIN 9.1 AC-FT 22420

08075500 SIMS BAYOU AT HOUSTON, TX

LOCATION.--Lat 29°40'27", long 95°17'21", Harris County, Hydrologic Unit 12040104, on left bank at downstream side of bridge on State Highway 35 in southeast Houston and 7.0 mi upstream from mouth.

DRAINAGE AREA.--63.0 mi^2. Prior to Oct. 1, 1976, 64.0 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1952 to current year.

REVISED RECORDS.--WSP 1922: 1960. WDR TX-76-2: 1975(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 3.09 ft below National Geodetic Vertical Datum of 1929, 1973 adjustment; unadjusted for land-surface subsidence. Telemetry located at station.

REMARKS.--Estimated daily discharges: Oct. 1-7, 14-18. Records fair. Low flow is largely sustained by sewage effluent from Houston suburbs and from industrial wastes. Stage discharge relationship is affected by seasonal vegetal growth during most years.

AVERAGE DISCHARGE.--34 years, 86.5 ft^3/s (62,670 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,400 ft^3/s Aug. 18, 1983, Hurricane Alica (gage height, 33.23 ft); minimum daily, 0.9 ft^3/s Aug. 7, 1955.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 11	2300	*9,180	*31.83	Feb. 4	0430	5,800	26.99
Dec. 11	1930	3,100	22.00	June 4	1930	4,490	24.89

Minimum daily discharge, 32 ft^3/s Nov. 8 and Aug. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	200	100	97	54	48	42	41	315	44	60	40	66
2	100	261	85	56	50	41	52	181	46	57	39	63
3	75	147	72	59	106	66	54	106	47	62	44	52
4	60	80	70	55	3100	153	50	57	1200	58	42	46
5	54	61	71	55	399	56	51	53	1110	50	47	48
6	61	37	75	53	152	45	48	51	163	65	55	247
7	57	36	68	64	97	41	54	50	120	56	52	412
8	60	32	68	75	80	44	52	48	808	50	42	82
9	60	34	73	108	83	43	47	49	416	62	50	57
10	69	36	73	209	86	43	113	74	203	64	39	55
11	66	2360	1330	77	63	45	73	73	681	52	208	53
12	74	3270	1030	57	59	82	39	52	450	54	139	48
13	75	313	331	52	55	53	39	49	247	48	50	153
14	300	126	131	59	51	45	41	45	189	49	43	73
15	500	140	86	54	48	42	43	48	98	47	37	63
16	180	92	70	49	50	41	40	49	106	77	35	54
17	90	68	64	72	53	39	44	71	302	54	36	52
18	100	60	63	58	55	46	43	115	126	49	35	45
19	189	57	61	57	52	39	41	66	62	48	36	83
20	135	68	56	52	53	41	81	60	44	47	32	68
21	88	52	55	57	46	47	52	46	68	47	48	80
22	149	49	55	55	41	46	43	44	108	48	114	179
23	102	49	50	50	44	53	40	44	102	48	140	72
24	155	263	58	50	43	48	38	45	69	47	139	93
25	84	397	50	53	44	50	42	89	64	53	130	57
26	72	128	46	45	42	52	36	101	66	53	54	46
27	58	146	57	44	42	52	42	112	78	50	46	47
28	550	216	55	52	42	52	48	79	60	52	49	40
29	366	116	56	48	---	41	44	52	61	34	43	48
30	146	97	54	49	---	39	44	46	62	33	35	68
31	162	---	57	51	---	38	---	49	---	39	77	---
TOTAL	4437	8891	4567	1929	5084	1565	1475	2319	7200	1613	1976	2550
MEAN	143	296	147	62.2	182	50.5	49.2	74.8	240	52.0	63.7	85.0
MAX	550	3270	1330	209	3100	153	113	315	1200	77	208	412
MIN	54	32	46	44	41	38	36	44	44	33	32	40
AC-FT	8800	17640	9060	3830	10080	3100	2930	4600	14280	3200	3920	5060
(††)	5.28	5.88	2.52	1.08	2.76	1.20	1.32	4.68	8.76	.36	4.92	8.28

CAL YR 1985 TOTAL 53062 MEAN 145 MAX 3270 MIN 32 AC-FT 105200 (††) 44.16
WTR YR 1986 TOTAL 43606 MEAN 119 MAX 3270 MIN 32 AC-FT 86490 (††) 47.04

(††) Rainfall, in inches.

08075500 SIMS BAYOU AT HOUSTON, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical, biochemical, and pesticide analyses: October 1968 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG												
11...	1705	685	265	7.70	25.5	30	220	6.8	82	5.9	12000	13000
11...	1935	545	300	7.50	25.5	50	290	6.4	77	11	14000	19000
12...	1115	127	486	7.00	25.0	30	75	5.6	68	6.4	120000	13000
12...	1625	88	521	7.40	28.5	30	78	5.6	--	6.3	32000	3300
14...	1043	44	713	7.60	29.5	10	32	3.2	--	4.8	26000	750

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
AUG												
11...	50	0	16	2.5	31	2	2.9	70	16	26	0.2	5.5
11...	--	--	--	--	--	--	--	--	--	--	--	--
12...	86	0	26	5.2	66	3	4.3	113	43	54	0.3	10
12...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)
AUG												
11...	140	332	32	1.68	0.12	1.80	0.17	0.63	0.8	1.50	14	8
11...	--	125	13	2.25	0.15	2.40	0.20	1.6	1.8	1.60	14	--
12...	280	128	17	2.14	0.26	2.40	0.41	0.79	1.2	1.80	9.8	5
12...	--	76	13	2.24	0.26	2.50	0.51	1.1	1.6	2.20	10	--
14...	--	51	9	3.41	0.29	3.70	0.60	1.1	1.7	0.02	7.9	--

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
AUG											
11...	37	<1	<10	3	21	<5	3	<0.1	<1	<1	12
11...	--	--	--	--	--	--	--	--	--	--	--
12...	71	<1	<10	4	22	<5	<1	<0.1	<1	<1	13
12...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--

DATE	AME-TRYNE TOTAL	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	METHO-MYL TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	PROPHAM TOTAL (UG/L)	SEVIN, TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)
AUG											
11...	<0.1	0.4	<0.1	<2.0	0.3	<0.1	<0.1	<2.0	<2.0	<0.1	<0.1
11...	--	--	--	--	--	--	--	--	--	--	--
12...	<0.1	0.5	<0.1	<2.0	0.2	<0.1	<0.1	<2.0	<2.0	0.3	<0.1
12...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--

08075650 BERRY BAYOU AT FOREST OAKS STREET, HOUSTON, TX

LOCATION.--Lat 29°40'35", long 95°14'37", Harris County, Hydrologic Unit 12040104, on left bank at downstream side of bridge at Forest Oaks Street in southeast Houston, 0.8 mi upstream from mouth of Berry Creek, and 1.7 mi upstream from Sims Bayou.

DRAINAGE AREA.--10.7 mi^2. Prior to Oct. 1, 1973, 11.1 mi^2. Oct. 1, 1976, to Dec. 31, 1977, 10.1 mi^2. Drainage ditch relocations resulted in drainage area changes.

PERIOD OF RECORD.--October 1967 to current year (stage only beginning October 1982). October 1966 to September 1982 operated as partial discharge or flood-hydrograph partial-record station. April 1964 to September 1966 operated as a daily discharge station.

Water-quality records.--Chemical, biochemical, and pesticide analyses: October 1968 to September 1981. Water temperatures: April 1964 to September 1981.

REVISED RECORDS.--WDR TX-80-2: 1979(P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 2.72 ft below National Geodetic Vertical Datum of 1929, 1973 adjustment prior to Oct. 1, 1982, auxiliary water-stage recorder 0.8 mi downstream at same datum. June 25, 1964, to Jan. 11, 1965, auxiliary nonrecording gage 0.8 mi downstream at same datum. Rain gage at station.

REMARKS.--Records good. Many days during the period Apr. 9 to Sept. 30, 1986 show abnormally high stages due to dams in channel below gage. Low stages affected by tidal surge. Rises sometimes affected by backwater from Sims Bayou. The reports "Hydrologic Data for Urban Studies in the Houston, Texas Metropolitan area," for the water years 1965-82 contain additional storm runoff data for this station. Telemetry at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,080 ft^3/s, June 9, 1975; maximum gage height, 23.85 ft Sept. 20, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 16.08 ft Nov. 11 at time unknown; minimum recorded, 2.67 ft Mar. 1.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.43	4.97	6.13	3.63	---	---	---	---	5.38	4.10	4.59	2.67
2	5.85	4.93	6.13	4.12	---	---	---	---	5.05	3.62	4.96	3.25
3	6.00	4.70	5.39	3.62	---	---	---	---	6.75	3.62	5.94	2.90
4	5.81	4.46	5.10	3.45	---	---	---	---	12.24	5.82	5.55	3.12
5	5.05	3.32	5.00	---	---	---	---	---	5.98	3.75	4.83	2.80
6	5.32	3.60	---	---	---	---	---	---	5.45	3.22	4.92	3.07
7	5.72	4.35	---	---	5.42	4.18	---	---	5.65	3.43	5.14	3.11
8	6.37	4.83	---	---	5.44	3.80	---	---	5.84	3.69	5.41	3.77
9	6.06	5.00	---	---	5.63	3.82	---	---	5.24	3.36	5.38	4.02
10	6.08	4.83	---	---	5.93	3.37	---	3.33	5.11	3.21	5.17	3.94
11	5.78	4.92	16.08	---	10.70	5.20	---	3.10	4.31	3.00	5.35	4.02
12	5.87	5.06	---	---	7.33	4.25	---	3.37	4.75	3.58	6.26	4.41
13	6.10	5.22	6.11	4.10	5.30	3.12	---	3.03	5.37	3.92	5.15	3.78
14	8.25	5.62	6.16	4.25	4.32	2.95	---	3.11	5.52	4.16	5.55	3.13
15	8.59	7.37	6.12	---	---	---	4.50	---	5.25	3.23	5.15	3.54
16	7.37	4.19	---	---	---	---	---	---	5.56	4.08	4.98	3.47
17	6.68	5.57	---	---	---	---	5.13	---	5.47	3.83	6.12	3.67
18	6.70	5.28	---	4.09	---	---	5.05	3.98	5.08	3.42	6.00	4.42
19	9.12	5.60	6.36	4.28	---	---	4.85	3.33	5.08	3.57	4.82	3.00
20	6.17	4.18	---	---	---	3.62	4.97	3.32	5.27	3.37	4.32	2.70
21	5.90	4.32	---	---	---	3.62	---	3.37	5.02	3.03	4.32	2.77
22	6.01	4.47	---	---	---	3.31	---	3.03	4.65	2.97	4.86	3.39
23	5.98	4.52	---	---	---	---	5.00	2.98	5.19	3.27	4.65	3.51
24	5.93	4.77	---	---	---	---	5.36	3.72	5.20	3.50	4.70	3.63
25	6.03	4.82	---	---	---	---	5.37	3.18	4.76	3.12	5.32	4.20
26	6.42	5.22	---	---	---	---	4.45	2.89	5.13	3.76	5.28	4.30
27	6.10	3.68	---	---	---	---	3.23	2.83	5.23	3.14	4.79	3.67
28	7.28	3.13	---	---	---	---	---	3.21	3.57	2.69	4.64	3.19
29	3.96	3.04	---	---	---	---	---	---	---	---	4.93	3.18
30	3.92	2.85	---	---	---	---	4.57	3.50	---	---	5.27	3.34
31	3.83	2.91	---	---	---	---	5.05	4.10	---	---	5.75	3.78
MONTH	9.12	2.85	16.08	3.45	10.70	2.95	5.37	2.83	12.24	2.69	6.26	2.67

08075650 BERRY BAYOU AT FOREST OAKS STREET, HOUSTON, TX--Continued

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.63	3.79	9.87	6.27	---	---	6.17	5.71	---	---	6.04	4.53
2	5.97	3.75	9.07	7.98	---	---	6.22	5.97	---	---	5.98	4.44
3	6.86	4.83	8.94	7.32	---	---	6.11	5.90	---	---	5.71	4.48
4	6.78	4.97	7.32	6.80	14.14	---	6.10	5.93	---	---	5.53	4.31
5	5.91	4.55	7.04	5.57	---	8.79	6.06	5.84	---	---	5.29	4.15
6	5.62	4.23	5.98	5.10	10.13	8.36	6.11	5.84	---	---	12.07	4.09
7	5.23	4.32	6.25	4.92	11.48	8.34	6.55	5.92	---	---	13.57	4.37
8	5.10	4.31	6.28	5.07	12.57	8.75	6.63	5.54	---	---	5.75	4.18
9	6.11	3.96	6.71	5.78	9.35	8.52	5.47	3.87	---	---	6.39	4.90
10	7.62	5.96	8.68	6.52	11.24	8.10	5.39	3.91	---	---	5.98	4.53
11	6.32	5.58	7.93	6.62	10.44	8.82	5.39	3.86	---	---	5.95	4.10
12	5.68	5.22	6.68	6.52	10.44	8.49	5.41	4.11	---	---	5.58	3.78
13	5.67	5.10	6.62	6.45	9.76	8.64	5.33	4.24	---	---	12.27	3.77
14	7.23	5.12	6.74	6.38	8.69	8.31	5.13	4.06	---	---	5.68	4.40
15	7.23	5.23	7.22	6.59	9.08	8.31	4.92	3.81	---	---	5.74	4.15
16	7.30	6.14	7.38	6.96	8.56	8.07	4.91	3.70	---	---	7.40	4.12
17	6.22	6.03	9.13	7.01	8.47	7.60	4.84	3.67	---	---	7.94	7.40
18	6.25	6.06	9.07	7.43	7.60	7.25	4.90	3.68	---	---	7.57	7.38
19	6.65	6.04	7.43	7.02	10.47	7.19	4.90	3.62	---	---	11.37	7.38
20	7.15	6.37	7.22	6.92	11.66	7.91	4.61	3.60	---	---	9.73	8.30
21	6.37	6.12	7.42	7.21	9.20	8.02	4.88	3.56	---	---	8.45	7.11
22	6.31	6.13	7.43	7.26	8.11	7.54	4.95	3.70	---	---	1.94	6.51
23	6.29	6.12	7.45	7.22	7.77	7.31	4.81	3.58	---	---	1.20	8.90
24	6.33	6.21	7.45	7.23	7.42	4.93	4.68	3.52	---	---	9.02	7.17
25	6.32	6.19	8.74	7.23	6.70	3.82	4.66	3.55	---	3.76	8.84	8.46
26	6.32	6.13	8.74	7.66	6.44	4.43	4.50	3.60	5.57	3.96	8.46	8.05
27	6.44	6.14	7.66	7.41	5.92	4.42	4.47	3.67	5.01	3.69	8.05	4.44
28	6.39	6.31	---	---	5.23	4.92	4.45	3.64	5.34	3.69	6.22	4.44
29	6.36	6.17	---	---	5.14	4.88	---	---	5.13	3.73	6.61	4.86
30	6.36	6.18	---	---	5.89	4.95	---	---	5.45	3.75	6.49	5.32
31	---	---	---	---	---	---	---	---	8.85	3.87	---	---
MONTH	7.62	3.75	9.87	4.92	14.14	3.82	6.63	3.52	8.85	3.69	13.57	3.77
YEAR	16.08	2.67										

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

08075730 VINCE BAYOU AT PASADENA, TX

LOCATION.--Lat 29°41'40", long 95°12'58", Harris County, Hydrologic Unit 12040104, on right bank of concrete lined channel at end of West Ellaine Avenue in Pasadena and 2.4 mi upstream from mouth.

DRAINAGE AREA.--7.32 mi². Prior to Jan. 1, 1978, 8.21 mi². Jan. 1 to Sept. 30, 1978, 7.61 mi². Drainage area revisions due to drainage ditch changes.

PERIOD OF RECORD.--October 1971 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 2.54 ft below National Geodetic Vertical Datum of 1929, 1973 adjustment; unadjusted for land-surface subsidence (levels by U.S. Army Corps of Engineers).

REMARKS.--Estimated daily discharges: Oct. 1-3, 7-17. Records fair except for estimated daily discharges, which are poor. Low flow is sustained by sewage effluent. Gage-height telemeter at station.

AVERAGE DISCHARGE.--15 years, 16.6 ft³/s (12,030 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,720 ft³/s May 3, 1981 (gage height, 18.30 ft); no flow Aug. 5, 6, 18, 1972, and July 28, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 11	1815	*2,740	*15.55	Sept. 7	1130	1,980	14.28
June 4	1745	1,690	13.74	Sept. 22	1700	1,420	13.19

Minimum, no flow, July 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	21	2.0	.53	1.6	.80	.80	157	.60	.22	.03	4.1
2	4.0	24	1.7	.53	1.4	.70	1.1	40	.37	.31	.03	1.9
3	1.5	2.8	1.3	.53	8.7	37	1.1	14	.23	1.1	6.8	2.2
4	.76	1.6	1.1	.53	229	23	1.6	5.5	220	.44	6.1	1.4
5	.53	1.2	1.2	.69	7.0	1.7	1.1	3.8	49	.25	25	1.5
6	.64	1.6	1.4	.77	3.4	1.2	.99	2.9	71	1.3	35	195
7	.60	2.5	.57	.56	1.9	.80	1.2	2.3	122	17	4.6	316
8	.55	1.8	.64	7.0	1.6	.64	1.2	1.3	187	3.9	1.2	6.6
9	.50	.44	.65	22	2.8	.64	2.8	1.3	17	1.1	45	109
10	.45	.36	.98	18	2.0	.59	33	33	76	.93	5.7	22
11	.40	641	230	1.3	1.4	1.5	4.5	12	86	.69	65	3.7
12	.40	135	66	1.0	1.5	11	1.2	2.7	98	.41	11	16
13	.50	8.7	14	.68	1.5	1.4	1.4	1.4	74	.74	1.9	150
14	30	2.0	4.1	.64	1.4	1.7	1.5	1.0	6.2	1.5	.82	12
15	80	100	2.9	.91	1.2	.81	.79	1.2	35	23	.67	1.5
16	20	4.6	2.5	2.3	2.1	.58	1.1	1.3	6.9	5.2	.75	.41
17	15	1.2	2.5	24	1.7	.43	1.2	37	21	1.1	.64	.18
18	10	.64	2.2	1.8	1.4	1.9	.84	20	2.7	.60	.45	.13
19	196	2.5	1.8	1.2	1.9	.86	2.2	2.2	135	.53	.51	4.9
20	26	1.1	3.4	.89	1.7	.74	24	1.1	146	.68	.52	13
21	2.8	.60	1.4	1.3	.98	.89	2.6	1.1	26	.45	5.3	27
22	4.8	.55	1.0	1.2	.62	.78	1.4	2.5	3.8	.46	1.4	172
23	1.2	.34	1.0	.94	.98	.80	1.3	2.2	3.5	.42	45	107
24	.65	208	.96	1.1	2.5	.90	1.2	2.1	7.5	.42	3.2	8.2
25	.63	41	1.3	2.0	1.5	1.0	1.1	20	2.8	.28	.80	1.2
26	.44	3.6	1.4	.83	.85	.87	1.3	9.2	.78	.26	.43	1.0
27	.97	11	2.0	.89	.78	.76	2.0	1.4	1.6	.11	8.4	.55
28	212	3.7	1.5	.89	.95	1.1	7.3	1.7	.31	.00	4.4	.81
29	17	1.4	.79	1.2	---	.91	1.6	.99	.13	.01	1.9	.77
30	43	.79	.53	1.3	---	1.2	.80	.20	.16	.06	1.0	.45
31	11	---	.58	.90	---	.97	---	.83	---	.03	3.3	---
TOTAL	692.32	1225.02	353.40	98.41	284.36	98.17	104.22	383.22	1400.58	63.50	286.85	1180.50
MEAN	22.3	40.8	11.4	3.17	10.2	3.17	3.47	12.4	46.7	2.05	9.25	39.4
MAX	212	641	230	24	229	37	33	157	220	23	65	316
MIN	.40	.34	.53	.53	.62	.43	.79	.20	.13	.00	.03	.13
AC-FT	1370	2430	701	195	564	195	207	760	2780	126	569	2340

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CAL YR 1985  TOTAL  5372.02      MEAN  14.7    MAX  651    MIN  .24    AC-FT  10660
WTR YR 1986  TOTAL  6170.55      MEAN  16.9    MAX  641    MIN  .00    AC-FT  12240
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08075770 HUNTING BAYOU AT INTERSTATE HIGHWAY 610, HOUSTON, TX

LOCATION.--Lat 29°47'35", long 95°16'04", Harris County, Hydrologic Unit 12040104, on left bank at downstream side of downstream service road bridge of Interstate Highway 610 in northeast Houston and 8.8 mi upstream from mouth.

DRAINAGE AREA.--15.8 mi². Prior to Oct. 1, 1973, 16.8 mi². Oct. 1, 1973, to Sept. 30, 1978, 14.7 mi². Changes due to storm sewer relocations.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1964 to current year. Prior to October 1973, published as "U.S. Highway 90-A, Houston".

REVISED RECORDS.--WRD TX-74-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is National Geodetic Vertical Datum of 1929, 1959 adjustment; unadjusted for land-surface subsidence. Prior to Oct. 1, 1972, water-stage recorder at site 1,800 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Oct. 10-11, and Jan. 8. Records good. Low flow is largely maintained by sewage and industrial effluent. Stage discharge relationship is affected by seasonal vegetal growth during most years. Recording rain gage at station. Gage-height telemeter at station.

AVERAGE DISCHARGE.--22 years, 23.7 ft³/s (17,170 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,440 ft³/s Aug. 18, 1983 (elevation, 39.16 ft); maximum gage height, 39.28 ft June 15, 1976; minimum daily, 0.88 ft³/s Aug. 24, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 11	1800	1,060	31.54	June 4	1930	978	31.16
Nov. 24	1830	1,060	31.56	June 8	1700	769	30.05
Feb. 4	0600	1,340	32.79	June 16	2200	*1,660	*34.86

Minimum daily discharge, 3.3 ft³/s May 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	18	20	9.2	14	6.3	4.6	97	17	8.2	7.6	13
2	6.3	36	15	9.0	14	6.3	4.6	31	12	41	12	7.4
3	5.3	16	12	8.6	14	17	4.4	11	6.3	33	7.9	11
4	5.0	12	11	8.6	549	44	4.6	6.2	257	10	9.4	6.8
5	4.7	9.5	9.9	8.6	56	10	4.8	5.4	139	8.6	35	6.3
6	4.6	8.9	9.2	8.8	35	8.2	6.2	6.1	72	38	17	209
7	4.8	8.2	8.0	8.8	19	7.5	5.8	5.0	31	57	9.5	47
8	4.7	7.9	7.9	12	15	7.2	4.7	4.6	293	25	9.0	16
9	4.3	8.5	7.7	15	27	7.2	5.3	5.1	119	13	7.9	11
10	4.5	8.0	7.8	26	26	7.0	30	12	26	11	25	22
11	4.5	330	249	10	16	7.0	14	8.8	75	10	86	15
12	23	131	135	8.8	12	26	7.4	5.2	45	9.4	40	10
13	32	22	52	8.6	11	9.4	5.8	4.5	39	9.1	9.9	47
14	72	14	24	8.1	10	9.2	6.0	4.2	62	8.7	9.5	22
15	143	16	25	7.8	10	7.2	5.5	4.5	80	106	8.0	11
16	14	12	22	7.9	9.9	6.6	4.7	4.2	405	105	6.4	7.8
17	36	8.2	15	12	9.4	6.5	4.7	9.7	469	17	11	29
18	19	7.5	13	8.3	8.9	8.9	4.6	17	53	13	7.3	17
19	65	7.6	13	7.3	8.5	7.1	4.7	4.8	42	11	6.4	22
20	25	6.8	13	7.1	8.2	5.6	47	4.2	26	9.8	8.5	125
21	22	6.5	12	7.2	8.3	5.8	9.0	3.8	16	9.4	5.9	48
22	16	5.9	11	6.9	8.4	5.5	6.0	3.7	15	9.1	5.8	22
23	104	6.1	11	7.9	7.4	5.3	5.1	3.7	13	9.0	36	20
24	86	319	11	6.4	7.3	5.2	4.7	3.3	10	8.4	23	14
25	18	186	10	6.5	7.2	4.9	4.6	46	15	8.3	10	10
26	19	29	10	6.3	7.1	4.8	4.7	31	28	8.4	110	7.2
27	8.3	37	12	6.4	6.7	5.2	4.8	24	18	9.1	45	7.0
28	236	25	10	6.0	6.4	4.9	14	22	13	7.5	15	8.5
29	58	17	9.7	6.2	---	4.8	5.4	6.8	9.3	7.2	10	9.9
30	39	15	9.7	6.5	---	4.7	4.5	85	8.5	7.7	7.1	6.4
31	32	---	9.5	13	---	4.7	---	98	---	7.4	15	---
TOTAL	1127.0	1334.6	785.4	279.8	931.7	270.0	242.2	577.8	2414.1	635.3	616.1	808.3
MEAN	36.4	44.5	25.3	9.03	33.3	8.71	8.07	18.6	80.5	20.5	19.9	26.9
MAX	236	330	249	26	549	44	47	98	469	106	110	209
MIN	4.3	5.9	7.7	6.0	6.4	4.7	4.4	3.3	6.3	7.2	5.8	6.3
AC-FT	2240	2650	1560	555	1850	536	480	1150	4790	1260	1220	1600
(††)	8.45	6.05	2.70	.76	4.57	1.27	1.88	5.94	10.84	4.44	4.16	4.32

CAL YR 1985 TOTAL 9279.1 MEAN 25.4 MAX 708 MIN 4.3 AC-FT 18410 (††) 44.69
WTR YR 1986 TOTAL 10022.3 MEAN 27.5 MAX 549 MIN 3.3 AC-FT 19880 (††) 55.39

(††) Rainfall, in inches.

08075770 HUNTING BAYOU AT INTERSTATE HIGHWAY 610, HOUSTON, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical, biochemical, and pesticide analyses: October 1968 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV												
11-13	1100	260	192	--	--	55	59	--	--	7.8	--	--
MAY												
01-03	0330	51	223	--	--	40	9.0	--	--	14	--	--
JUN												
03...	1115	6.1	735	7.60	27.0	20	6.0	3.3	41	8.7	2000	750

DATE	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
NOV												
11-13	65	6	21	3.0	11	0.6	3.6	59	20	8.9	0.2	5.4
MAY												
01-03	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
03...	190	0	59	11	70	2	5.8	238	50	55	0.7	14

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	SOLIDS, VOLATILE, SUSPENDED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DISSOLVED (UG/L AS AS)
NOV												
11-13	110	146	30	0.64	0.06	0.70	0.24	1.2	1.4	0.72	15	--
MAY												
01-03	--	296	48	0.94	0.16	1.10	0.75	2.1	2.8	0.83	22	--
JUN												
03...	410	17	7	0.63	0.27	0.90	6.00	2.8	8.8	1.90	10	12

DATE	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)
NOV											
11-13	--	--	--	--	--	--	--	--	--	--	--
MAY											
01-03	--	--	--	--	--	--	--	--	--	--	--
JUN											
03...	120	<1	<10	4	19	<1	27	<0.1	<1	<1	21

08075900 GREENS BAYOU AT U.S. HIGHWAY 75 NEAR HOUSTON, TX

LOCATION.--Lat 29°57'24", long 95°25'04", Harris County, Hydrologic Unit 12040104, on left bank at downstream side of U.S. Highway 75 access road bridge, 9.0 mi upstream from station 08076000, and 21 mi upstream from Halls Bayou.

DRAINAGE AREA.--36.1 mi². Prior to October 1973, 34.8 mi².

PERIOD OF RECORD.--August 1965 to current year (discharge measurements and supplemental peak discharges only, Oct. 1, 1980, to Mar. 26, 1981).

REVISED RECORDS.--WDR TX-76-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is National Geodetic Datum of 1929, 1959 adjustment; unadjusted for land-surface subsidence.

REMARKS.--Estimated daily discharges: Nov. 15, 16, 21-25 and July 13 to Aug. 7. Records good except for Nov. 21-25 and July 13 to Aug. 7, which are poor. Stage discharge relationship is affected by seasonal vegetal growth during most years. Channel was rectified (widened and bed lowered about 2 ft) in 1980-81. Records furnished by Houston Lighting and Power Co. show that about 2,240 acre-ft of ground water used for cooling purposes was released to Bayou about 8 mi upstream from station during the current year. No known diversion above station. Several observations of water temperature were made during the year. Recording rain gage and telemeter at station.

AVERAGE DISCHARGE.--20 years (water years 1966-80, 1982-1986), 35.8 ft³/s (25,940 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,920 ft³/s Oct. 25, 1984 (elevation, 87.37 ft); maximum elevation, 91.09 ft Feb. 21, 1969, occurred prior to 1980-81 channel rectification; minimum daily discharge, 0.16 ft³/s Oct. 21, 22, 1969.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 24	about 1500	*2,520	*82.4	Dec. 11	1500	1,810	81.10

Minimum daily discharge, 11 ft³/s Apr. 15-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	22	67	19	16	14	13	267	48	15	12	33
2	19	54	24	17	17	14	13	54	21	16	14	17
3	14	31	18	20	221	57	13	20	16	16	12	25
4	13	18	16	16	348	84	12	14	76	13	17	20
5	12	15	15	14	61	18	12	14	139	14	55	15
6	12	13	15	18	58	15	13	13	109	19	75	221
7	13	12	14	18	22	14	13	15	60	19	27	85
8	13	12	15	24	18	14	13	17	440	20	14	56
9	13	13	15	31	53	14	12	12	249	19	12	98
10	12	13	15	42	29	14	57	25	116	19	12	58
11	12	91	511	20	19	15	21	23	81	17	14	43
12	12	79	368	17	20	176	13	15	58	15	17	20
13	25	21	159	18	16	23	12	13	31	14	14	55
14	54	26	52	17	16	18	12	12	46	15	21	85
15	142	50	31	16	15	15	11	17	43	16	15	44
16	30	28	27	16	14	15	11	15	48	15	14	32
17	45	20	23	18	15	14	11	42	53	15	12	25
18	33	16	21	16	16	14	11	60	26	15	13	46
19	291	14	20	15	15	13	18	19	23	14	13	41
20	186	13	20	15	15	14	96	14	22	13	12	106
21	134	12	19	15	14	13	17	14	37	14	13	114
22	178	13	19	14	14	13	14	14	28	14	16	36
23	30	12	18	15	14	13	13	13	27	13	72	25
24	17	1200	18	15	13	15	12	12	17	13	33	21
25	14	500	17	15	13	20	13	56	17	13	15	17
26	14	75	17	15	13	18	13	38	25	13	44	39
27	14	71	17	15	13	16	13	103	27	13	21	23
28	246	41	17	14	13	15	73	32	17	12	18	52
29	80	20	17	16	---	14	17	15	14	12	14	49
30	88	17	18	18	---	14	14	204	13	12	12	21
31	57	---	21	17	---	13	---	215	---	12	61	---
TOTAL	1864	2522	1644	556	1111	739	506	1397	1927	460	714	1522
MEAN	60.1	84.1	53.0	17.9	39.7	23.8	19.5	45.1	64.2	14.8	23.0	50.7
MAX	291	1200	511	42	348	176	96	267	440	20	75	221
MIN	12	12	14	14	13	13	11	12	13	12	12	15
AC-FT	3700	5000	3260	1100	2200	1470	1160	2770	3820	912	1420	3020
(††)	4.76	5.28	3.79	.59	3.06	1.30	2.01	4.52	6.16	.15	3.38	5.79

CAL YR 1985	TOTAL 19118	MEAN 52.4	MAX 1200	MIN 12	AC-FT 37920	(††) 41.26
WTR YR 1986	TOTAL 15042	MEAN 41.2	MAX 1200	MIN 11	AC-FT 29840	(††) 41.59

(††) Rainfall, in inches.

08076000 GREENS BAYOU NEAR HOUSTON, TX

LOCATION.--Lat 29°55'05", long 95°18'24", Harris County, Hydrologic Unit 12040104, on left bank at downstream side of bridge on U.S. Highway 59 access road, 10.5 mi northeast of Houston, 12.0 mi upstream from Halls Bayou, and 23.4 mi upstream from mouth.

DRAINAGE AREA.--69.6 mi². Prior to Oct. 1, 1973, 72.7 mi².

PERIOD OF RECORD.--October 1952 to current year.

REVISED RECORDS.--WSP 1732: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 0.66 ft below National Geodetic Vertical Datum of 1929, 1957 adjustment; unadjusted for land-surface subsidence.

REMARKS.--Estimated daily discharges: Oct. 30 to Nov. 2, June 6-9, July 8 to Aug. 8 and Sept. 7-30. Records fair except for estimated daily discharges, which are poor. Channel was rectified during water years 1974-75. No known diversion above station. Low flow is sustained by Houston Lighting and Power Co. effluent, which is obtained from ground-water sources. Recording rain gage and telemeter at station.

AVERAGE DISCHARGE.--34 years, 64.2 ft³/s (46,510 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,500 ft³/s Oct. 25, 1984 (gage height, 66.00 ft); no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 24	2000	*3,480	*60.13	Feb. 4	0100	2,730	58.21
Dec. 11	1600	2,850	58.95	June 8	unknown	3,300	59.51

Minimum daily discharge, 19 ft³/s Apr. 25, May 14, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	50	110	33	26	25	24	791	86	29	26	166
2	37	120	54	34	26	27	24	487	41	29	27	67
3	28	81	35	34	133	38	24	167	26	32	24	52
4	26	43	33	31	1390	218	24	53	181	26	33	64
5	24	33	31	28	209	37	24	24	222	24	110	35
6	25	30	29	30	209	27	23	24	900	56	110	616
7	26	29	27	32	87	26	24	23	300	78	50	210
8	24	29	27	49	64	26	23	24	1700	40	35	80
9	25	28	28	62	313	24	22	22	800	37	30	130
10	25	28	29	91	145	23	89	39	435	35	30	80
11	24	116	1310	39	70	24	59	52	307	32	29	60
12	25	192	864	32	54	283	27	25	181	30	32	35
13	41	47	330	30	43	55	23	21	77	28	35	65
14	88	46	113	30	41	44	22	19	84	28	30	100
15	249	108	70	29	37	34	21	30	64	35	31	70
16	71	110	57	29	35	31	20	28	100	70	34	50
17	153	42	50	35	35	28	20	39	479	45	30	40
18	208	35	45	31	35	29	20	132	177	35	28	80
19	362	30	40	28	33	27	20	35	58	28	28	80
20	418	28	38	27	32	25	201	23	45	28	28	130
21	105	26	37	27	30	25	38	22	64	27	29	160
22	328	25	35	27	28	24	24	21	41	26	47	80
23	76	25	34	27	27	24	21	21	60	25	160	55
24	45	1070	31	27	27	24	20	19	40	25	120	50
25	35	968	31	28	27	27	19	50	33	25	41	35
26	33	155	30	26	28	34	20	112	51	25	43	55
27	28	182	32	29	27	28	20	187	111	26	73	40
28	533	120	33	29	25	26	134	87	87	25	53	75
29	244	51	30	29	---	25	40	27	31	24	45	85
30	108	40	30	27	---	24	25	177	28	24	26	35
31	120	---	34	28	---	23	---	507	---	23	91	---
TOTAL	3618	3887	3677	1038	3236	1335	1095	3288	6809	1020	1508	2880
MEAN	117	130	119	33.5	116	43.1	36.5	106	227	32.9	48.6	96.0
MAX	533	1070	1310	91	1390	283	201	791	1700	78	160	616
MIN	24	25	27	26	25	23	19	19	26	23	24	35
AC-FT	7180	7710	7290	2060	6420	2650	2170	6520	13510	2020	2990	5710
(††)	6.66	3.52	3.38	.40	2.36	.80	1.35	4.32	5.67	.56	3.50	5.11

CAL YR 1985 TOTAL 35141 MEAN 96.3 MAX 1530 MIN 23 AC-FT 69700 (††) 42.78
WTR YR 1986 TOTAL 33391 MEAN 91.5 MAX 1700 MIN 19 AC-FT 66230 (††) 37.63

(††) Rainfall, in inches.

08076500 HALLS BAYOU AT HOUSTON, TX

LOCATION.--Lat 29°51'42", long 95°20'05", Harris County, Hydrologic Unit 12040104, on right bank at downstream side of bridge on Jensen Drive in northeast section of Houston and 11.0 mi upstream from mouth.

DRAINAGE AREA.--27.6 mi². Oct. 1, 1973, to Sept. 30, 1977, 28.3 mi². Prior to Oct. 1, 1973, 24.7 mi². Changes were result of drainage ditch extensions or relocations.

PERIOD OF RECORD.--October 1952 to current year.

REVISED RECORDS.--WSP 1732: Drainage area. WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 0.66 ft below National Geodetic Vertical Datum of 1929, 1957 adjustment; unadjusted for land-surface subsidence.

REMARKS.--Estimated daily discharges: Oct. 27-31, Nov. 11 to Dec. 26, Mar. 19-25, June 20 to July 2 and July 5 to Aug. 20. Records fair except for estimated daily discharges, which are poor. Stage discharge relationship is affected by seasonal vegetal growth during most years. No known diversion above station. Low flow is sustained by sewage effluent from Houston suburbs. Telemeter at station.

AVERAGE DISCHARGE.--34 years, 29.4 ft³/s (21,300 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,670 ft³/s Oct. 25, 1984 (gage height, 62.42 ft, from peak mark); no flow at times prior to 1956.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 24	unknown	*1,890	*57.95	June 8	1700	*1,890	*57.95
Dec. 11	unknown	1,480	56.32	Sept. 6	1630	1,220	55.84
Feb. 4	0200	1,420	56.11				

Minimum daily discharge, 5.9 ft³/s Oct. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	18	40	14	12	15	9.5	183	36	12	9.0	35
2	7.6	35	30	14	12	16	12	96	21	13	11	34
3	6.3	23	20	14	55	25	12	23	14	13	10	29
4	6.3	14	18	14	602	78	11	12	57	10	14	16
5	6.3	12	17	14	90	18	11	11	187	10	50	27
6	6.4	9.9	16	14	84	15	11	10	445	40	30	405
7	6.3	9.5	15	14	38	14	12	10	162	55	15	115
8	6.0	9.5	14	19	27	13	13	10	835	20	10	21
9	5.9	9.1	13	25	126	13	12	9.4	389	14	9.0	30
10	6.1	9.5	13	32	69	13	26	14	282	14	9.0	21
11	6.3	60	600	20	36	13	28	20	360	13	40	19
12	19	45	300	15	25	64	14	12	140	11	25	12
13	22	17	100	15	21	24	13	10	48	11	15	10
14	90	13	45	13	21	18	13	10	32	12	15	20
15	144	15	50	13	20	15	13	11	27	60	11	23
16	16	13	35	13	19	14	11	11	67	30	10	16
17	32	13	25	15	18	14	11	14	166	20	11	12
18	48	13	22	15	18	14	12	34	60	13	10	26
19	118	13	20	14	17	13	12	19	24	11	10	34
20	73	12	19	14	17	12	50	12	43	10	9.0	22
21	15	12	18	14	16	12	20	9.7	38	11	7.5	37
22	41	12	17	13	15	11	14	10	26	11	16	43
23	26	12	16	13	15	11	12	10	25	10	24	29
24	15	750	15	13	14	11	12	10	28	10	28	17
25	13	300	14	13	13	11	12	25	20	10	12	15
26	16	50	14	13	12	11	12	19	20	10	18	14
27	9.5	60	15	13	12	11	13	16	25	10	17	13
28	250	40	15	12	12	11	31	33	31	9.0	11	20
29	100	30	15	12	---	12	19	22	17	9.0	9.7	24
30	60	25	15	12	---	14	16	108	14	9.0	7.7	11
31	45	---	15	14	---	11	---	183	---	9.0	21	---
TOTAL	1235.0	1654.5	1581	463	1436	547	467.5	977.1	3639	500.0	494.9	1150
MEAN	39.8	55.1	51.0	14.9	51.3	17.6	15.6	31.5	121	16.1	16.0	38.3
MAX	250	750	600	32	602	78	50	183	835	60	50	405
MIN	5.9	9.1	13	12	12	11	9.5	9.4	14	9.0	7.5	10
AC-FT	2450	3280	3140	918	2850	1080	927	1940	7220	992	982	2280
(††)	9.96	4.88	3.48	.60	2.16	1.44	1.92	5.64	9.00	1.20	3.36	5.64

CAL YR 1985 TOTAL 13866.9 MEAN 38.0 MAX 761 MIN 5.9 AC-FT 27500 (††) 45.00
WTR YR 1986 TOTAL 14145.0 MEAN 38.8 MAX 835 MIN 5.9 AC-FT 28060 (††) 49.08

(††) Rainfall, in inches.

08076700 GREENS BAYOU AT LEY ROAD, HOUSTON, TX

LOCATION.--Lat 29°50'13", long 95°13'59", Harris County, Hydrologic Unit 12040104, on right bank at downstream side of Ley Road Bridge in northeast Houston and 300 ft downstream from mouth of Halls Bayou.

DRAINAGE AREA.--182 mi².

PERIOD OF RECORD.--November 1962 to December 1964, May to September 1971 (discharge measurements only), October 1971 to current year.
Water-quality records: Chemical, biochemical, and pesticide analyses: October 1970 to September 1981.

GAGE.--Water-stage recorder. Datum of gage is 2.13 ft below National Geodetic Vertical Datum of 1929, 1973 adjustment.

REMARKS.--No estimated daily discharges except during days affected by tides (usually below 1,000 ft³/s). Records fair. Discharges for days with peak discharges below 2,000 ft³/s are not computed. Estimates for days affected by tides are made only during storm periods that produce peak discharges greater than 2,000 ft³/s. Telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,700 ft³/s June 13, 1973 (gage height, 34.27 ft); minimum not determined (affected by tides).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 25	0300	6,220	22.15	Feb. 4	0900	*6,700	*22.75
Dec. 11	2300	5,920	21.75	June 8	2400	6,110	22.01

Minimum discharge not determined (affected by tides).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	130	---		---				---			---
2	---	---	---		---				---			---
3	---	---	---		160				---			---
4	---	---	---		4730				540			---
5	---	---	---		910				940			---
6	---	---	---		640				1640			1220
7	---	---	---		200				600			1420
8	---	---	---		---				2440			190
9	---	---	---		---				3210			---
10	---	---	---		---				1100			---
11	---	---	2120		---				1120			---
12	---	---	3520		---				860			---
13	---	---	1550		---				650			---
14	---	---	430		---				---			---
15	---	---	100		---				---			---
16	---	---	---		---				---			---
17	---	---	---		---				---			---
18	---	---	---		---				---			---
19	---	---	---		---				---			---
20	---	---	---		---				---			---
21	---	---	---		---				---			---
22	---	---	---		---				---			---
23	---	---	---		---				---			---
24	---	1290	---		---				---			---
25	---	3830	---		---				---			---
26	---	650	---		---				---			---
27	---	---	---		---				---			---
28	1260	---	---		---				---			---
29	1090	---	---		---				---			---
30	300	---	---		---				---			---
31	570	---	---		---				---			---
TOTAL	---	---	---		---				---			---
MEAN	---	---	---		---				---			---
MAX	---	---	---		---				---			---
MIN	---	---	---		---				---			---
AC-FT	---	---	---		---				---			---

CAL YR 1985 TOTAL - MEAN - MAX - MIN - AC-FT -
WTR YR 1986 TOTAL - MEAN - MAX - MIN - AC-FT -

08077000 CLEAR CREEK NEAR PEARLAND, TX

LOCATION.--Lat 29°35'50", long 95°17'11", Harris-Brazoria County line, Hydrologic Unit 12040204, on left bank at downstream side of bridge on State Highway 35, 0.7 mi downstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 1.2 mi upstream from Hickory Slough, 2.3 mi north of Pearland, and about 30 mi upstream from head of Clear Lake.

DRAINAGE AREA.--38.8 mi^2.

PERIOD OF RECORD.--July to October 1944, March to October 1946, April 1947 to December 1959, March 1963 to current year. Discharge for some high-water periods in 1944 and 1946 published in WSP 1392.

REVISED RECORDS.--WSP 1392: 1947(M).

GAGE.--Water-stage recorder. Datum of gage is 26.58 ft above National Geodetic Vertical Datum of 1929, 1973 adjustment; prior records unadjusted for land-surface subsidence. Prior to June 9, 1948, nonrecording gage, and June 9, 1948, to Apr. 22, 1952, water-stage recorder at same site and datum 5.80 ft higher.

REMARKS.--Estimated daily discharges: Feb. 24-28 and Mar. 1-3, 8-11, and 16-20. Records poor. During most years, the stage discharge relationship is affected by seasonal vegetal growth. A small amount of the drainage area is currently irrigated with water from the Brazos River. Low flow from April to October is largely drainage from these irrigated areas. There are many small diversions for irrigation above station. Several observations of water temperature were made during the current year.

AVERAGE DISCHARGE.--35 years (water years 1948-59, 1964-86), 36.8 ft^3/s (26,660 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,170 ft^3/s Mar. 18, 1957; maximum gage height, 18.57 ft July 26, 1979; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 26, 1960, stage and discharge unknown, may have exceeded that of Mar. 18, 1957. Channel was rectified in 1933, 1952, 1968, and 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 12	1600	*1,450	*17.52	Feb. 4	1500	1,060	14.24
Dec. 12	0200	831	12.51				

Minimum discharge, 1.5 ft^3/s Oct. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	16	13	5.5	4.1	3.2	2.5	18	6.8	7.6	7.8	3.2
2	6.4	31	8.8	4.6	4.1	3.0	2.9	22	6.3	7.3	7.9	3.1
3	3.4	26	6.8	4.2	4.3	5.0	4.2	24	6.2	7.7	7.7	3.0
4	2.3	13	6.0	4.1	875	17	6.5	7.1	92	8.4	8.9	3.0
5	1.9	7.8	5.2	4.1	825	5.9	8.9	3.2	418	9.9	17	2.2
6	1.7	4.5	4.6	4.1	359	4.8	4.3	2.7	127	11	20	24
7	1.7	3.4	4.4	4.1	124	4.2	4.0	2.6	52	12	20	49
8	1.6	2.9	4.1	4.8	51	3.7	13	2.0	197	15	23	25
9	1.5	2.5	4.6	7.9	29	3.4	11	2.0	359	21	23	17
10	1.5	2.2	4.3	29	24	3.2	8.2	2.4	205	22	17	9.9
11	1.6	374	271	19	18	3.0	9.3	3.9	191	21	24	5.6
12	2.9	1440	733	12	11	5.6	7.1	3.1	134	18	21	4.3
13	2.5	1380	402	8.4	8.7	5.3	4.1	4.1	144	15	15	3.6
14	1.7	1050	171	6.6	7.2	4.6	3.3	3.9	382	13	12	10
15	21	343	70	5.5	6.6	4.0	2.8	3.9	205	11	11	9.8
16	9.7	115	41	8.7	6.1	3.5	2.4	5.0	124	13	7.8	3.6
17	5.8	45	28	15	5.9	3.0	2.4	5.5	61	11	6.6	3.1
18	4.5	26	21	9.5	5.5	3.5	2.1	8.1	128	10	6.3	2.6
19	89	16	16	7.5	5.1	3.0	2.4	9.2	81	9.8	5.6	3.7
20	98	9.9	12	5.9	5.0	2.6	6.4	13	37	10	3.9	3.7
21	20	6.8	8.9	6.0	4.8	2.5	12	10	22	9.9	3.9	3.7
22	17	5.0	7.4	5.1	4.5	2.6	9.2	8.1	14	10	3.7	8.1
23	17	4.3	6.9	4.7	4.2	2.7	5.0	5.2	15	9.2	15	7.4
24	13	37	6.3	4.6	4.2	2.8	3.8	5.3	15	8.0	8.2	4.8
25	8.2	129	5.6	4.4	4.0	2.8	3.0	6.2	12	7.6	12	4.2
26	5.5	60	5.1	4.3	3.8	2.9	3.3	15	11	8.2	11	3.4
27	4.0	35	5.5	4.1	3.6	3.1	5.1	8.5	9.4	8.4	6.5	3.0
28	65	36	5.5	4.1	3.4	3.0	12	11	8.3	7.7	5.1	2.5
29	104	25	4.8	4.1	---	3.0	15	9.2	7.4	7.5	3.9	2.2
30	46	17	4.6	4.1	---	2.9	6.2	8.1	7.3	9.7	3.2	2.0
31	35	---	4.9	4.0	---	2.7	---	6.9	---	8.7	3.2	---
TOTAL	608.4	5263.3	1892.3	220.0	2411.1	122.5	182.4	239.2	3077.7	348.6	341.2	230.7
MEAN	19.6	175	61.0	7.10	86.1	3.95	6.08	7.72	103	11.2	11.0	7.69
MAX	104	1440	733	29	875	17	15	24	418	22	24	49
MIN	1.5	2.2	4.1	4.0	3.4	2.5	2.1	2.0	6.2	7.3	3.2	2.0
AC-FT	1210	10440	3750	436	4780	243	362	474	6100	691	677	458

CAL YR 1985 TOTAL 18780.12 MEAN 51.5 MAX 1440 MIN .59 AC-FT 37250
WTR YR 1986 TOTAL 14937.4 MEAN 40.9 MAX 1440 MIN 1.5 AC-FT 29630

08077650 MOSES LAKE-GALVESTON BAY NEAR TEXAS CITY, TX

LOCATION.--Lat 29°26'50", long 94°55'12", Galveston County, Hydrologic Unit 12040204, on right side of gate abutment of Texas City Flood Control Dike, one orifice located upstream and one downstream, at mouth of Moses Lake, and 4.5 mi north of Texas City.

PERIOD OF RECORD.--May 1967 to current year.

GAGE.--Duplex water-stage recorder and crest-stage gages. Datum of gage is National Geodetic Vertical Datum of 1929, (levels by county engineer, Galveston County), 1978 adjustment. Prior to May 19, 1983, datum of gage was 0.49 ft below National Geodetic Vertical Datum of 1929, 1973 adjustment. Prior records unadjusted for land-surface subsidence.

REMARKS.--Records good. The purpose of this station is to record elevations of high tides in Galveston Bay and the corresponding elevations of the water surface in Moses Lake. Moses Lake is connected to Galveston Bay by gated opening through levee. No elevations are shown for Moses Lake until they reach 3.0 ft on either side. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height (Moses Lake), 4.4 ft Sept. 20, 1979; minimum, -4.2 ft Feb. 28, 1983. Maximum elevation (Galveston Bay), about 10.0 ft (Hurricane Alicia) Aug. 18, 1983; minimum, about -4.2 ft. Feb. 28, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum elevation (Moses Lake), 2.3 ft May 17; minimum, -1.9 ft. Oct. 31. Maximum elevation (Galveston Bay), 3.6 ft May 17; minimum, -2.9 ft Oct. 30.

MAXIMUM DAILY ELEVATION, IN FEET, MOSES LAKE AND GALVESTON BAY
WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MOSES LAKE MAX	GALV. BAY MAX	MOSES LAKE MAX	GALV. BAY MAX	MOSES LAKE MAX	GALV. BAY MAX	MOSES LAKE MAX	GALV. BAY MAX	MOSES LAKE MAX	GALV. BAY MAX	MOSES LAKE MAX	GALV. BAY MAX
1		1.3		1.5		2.2		.7		.8		.2
2		1.6		1.9		.6		.8		.7		.7
3		1.7		1.5		1.5		1.1		1.4		.6
4		1.7		1.1		1.9		1.1		1.5		.2
5		1.2		.9		1.4		.5		1.4		.6
6		1.1		1.2		.8		1.5		1.2		.7
7		1.5		.8		1.1		1.5		1.5		.8
8		2.0		1.1		1.1		1.4		1.7		.9
9		1.7		1.6		1.4		1.1		1.1		1.0
10		1.8		1.5		1.8		1.2		1.1		1.1
11		1.4		1.8		1.8		.8		-0.1		.9
12		1.4		1.6		1.1		1.0		.4		1.5
13		1.5		1.7		1.0		.5		1.2		.9
14		1.7		1.7		.1		.3		1.2		1.2
15		1.7		1.8		.8		.3		1.0		1.0
16		1.3		1.4		.9		.6		1.3		.7
17		1.7		1.6		.8		.9		1.2		1.3
18		2.5		1.7		.7		.9		.9		1.7
19		2.3		2.1		.8		.7		.9		1.0
20		2.0		1.4		.9		.7		1.0		.4
21		1.9		1.0		.7		.7		1.0		.4
22		1.8		1.6		.8		.7		.6		.6
23		1.9		2.2		.8		.7		.8		.6
24		1.7		2.0		.8		1.2		1.1		.3
25		1.9		1.7		.2		1.3		.5		.8
26		2.5		1.8		.7		.5		.9		1.0
27		2.4		1.9		.9		-0.8		.7		.5
28		.6		1.9		.8		.2		-0.4		.5
29		-1.5		1.5		.6		.3		---		.7
30		-1.6		1.8		1.0		.2		---		1.1
31		-0.1		---		1.2		.7		---		1.4
MONTH		2.5		2.2		2.2		1.5		1.7		1.7

08077650 MOSES LAKE-GALVESTON BAY NEAR TEXAS CITY, TX--Continued

MAXIMUM DAILY ELEVATION, IN FEET, MOSES LAKE AND GALVESTON BAY
WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MOSES LAKE MAX	GALV. BAY MAX	MOSES LAKE MAX	GALV. BAY MAX	MOSES LAKE MAX	GALV. BAY MAX	MOSES LAKE MAX	GALV. BAY MAX	MOSES LAKE MAX	GALV. BAY MAX	MOSES LAKE MAX	GALV. BAY MAX
1		1.3	---	1.6		1.4		1.2		.4		1.5
2		1.6	---	1.5		1.4		1.0		.3		1.7
3		2.2	---	1.3		1.6		.6		.8		1.5
4		2.3	---	1.3		1.5		.8		.8		1.3
5		1.5	---	1.5		1.8		1.0		1.0		1.0
6		1.4	---	1.5		1.8		1.1		1.0		1.0
7		1.0	---	1.7		1.6		1.0		.8		1.2
8		.8	---	1.8		1.9		1.0		.8		1.1
9		1.0	---	1.8		1.7		1.2		.8		1.3
10		1.3	---	1.8		1.7		1.1		.6		1.7
11		1.3	---	1.7		1.6		.7		.6		1.8
12		1.2	---	1.4		.9		.8		.9		1.5
13		1.3	---	1.3		1.1		.9		1.0		1.3
14		1.5	---	1.5		.7		.7		1.1		1.5
15		1.2	---	1.8		.8		.7		1.1		1.6
16		.9	---	2.2		.7		.8		.9		1.4
17		1.4	2.3	3.6		.8		.7		.8		1.5
18		1.5	---	1.4		1.1		.8		.3		1.5
19		1.6	---	.8		1.1		.7		.6		1.4
20		1.6	---	1.1		1.2		.5		.4		1.6
21		.3	---	1.4		1.2		.6		1.0		1.6
22		.5	---	1.8		1.4		.7		.8		1.7
23		1.0	---	2.0		1.5		.5		1.2		1.7
24		1.0	---	1.8		1.4		.4		.7		1.9
25		1.3	---	1.7		2.5		.3		.7		1.9
26		1.4	---	1.4		2.3		.3		.8		2.0
27		1.8	---	1.5		1.4		.1		.8		1.8
28		1.4	---	1.2		.9		.2		1.2		1.9
29		1.6	---	1.2		.8		.3		1.0		2.2
30		1.7	---	1.4		1.2		.3		1.3		2.0
31		---	---	1.4		---		.3		1.5		---
MONTH		1.7	2.3	3.6		2.5		1.2		1.5		2.2
YEAR	2.3	3.6										

08077690 HIGHLAND BAYOU DIVERSION CHANNEL NEAR HITCHCOCK, TX

LOCATION.--Lat 29°21'20", long 95°02'22", Galveston County, Hydrologic Unit 12040204, at downstream side of bridge on State Highway 6, 1.1 mi west of Hitchcock, and 7 mi upstream from mouth.

DRAINAGE AREA.--Not determinable.

PERIOD OF RECORD.--June 1982 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum, 1973 adjustment; unadjusted for land-surface subsidence.

REMARKS.--Records good. This channel drains the headwaters of Highland Bayou. There is an earthern dam about 2,000 ft upstream from former gage on the natural channel. This dam diverts floodwaters into the diversion channel and has a 24-inch uncontrolled outlet for maintaining base flow in the natural channel. Records prior to June 1982 were collected at gage on natural channel (station 08077700).

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 9.21 ft Aug. 18, 1983 (Hurricane Alicia), minimum (estimated), -2.8 ft Oct. 30, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 2.09 ft Oct. 27 at 0500 hours; minimum (estimated), -2.8 ft Oct. 30.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	0.70	-0.28	1.04	-0.73	1.34	-0.62	0.21	-0.73	0.23	-0.43	-0.45	-1.81
2	.97	.09	1.53	-.09	.31	-1.08	.32	-.41	.18	-.84	-.16	-1.19
3	.97	.02	1.04	-.54	1.23	.27	.43	-.24	.83	-.82	-.29	-1.33
4	.91	-.20	.44	-.73	1.38	.02	.47	-.34	.81	-.42	-.36	-1.58
5	.45	-.84	.24	-.79	.72	-.85	.01	-1.38	.74	-.71	.06	-1.66
6	.42	-.39	.44	-.79	.22	-.47	.80	-.84	.27	-1.36	-.01	-1.18
7	.76	-.16	.08	-.84	.35	-.09	.80	-.64	.87	-.94	.01	-1.18
8	1.33	.10	.61	-.33	.49	-.40	1.09	-.30	.97	-.50	.30	-.68
9	1.12	-.01	.95	.39	.69	-.41	.97	-.49	.47	-.68	.31	-.48
10	1.15	.00	1.01	.19	1.22	-.30	.87	-1.00	.55	-.90	.37	-.41
11	.94	.08	1.11	-.08	1.24	-.67	.20	-1.29	-.60	-1.50	.16	-.37
12	.86	.13	1.07	-.31	.62	-.88	.38	-.97	-.20	-.76	-.15	-.15
13	.91	.20	1.00	-.40	.37	-1.84	-.16	-1.37	.58	-.47	.15	-.53
14	1.10	.22	1.05	-.34	-.31	-1.90	-.44	-1.26	.48	-.44	.74	-1.03
15	.98	-.56	1.07	-.43	.23	-.74	-.35	-.86	.38	-.94	.41	-.53
16	.86	-.49	.76	-.69	.40	-.96	.08	-.43	.61	-.29	-.05	-.72
17	1.30	-.05	.91	-.25	.25	-.83	.32	-.51	.48	-.56	.69	-.77
18	1.67	.20	1.05	.05	.07	-.62	.21	-.43	.06	-.89	.92	-.03
19	1.46	-.13	1.36	.03	.27	-.43	.02	-.90	.05	-.91	.13	-.91
20	1.25	-.12	.69	-.25	.25	-.63	.08	-1.11	.16	-.95	-.01	-1.14
21	1.20	.09	.62	.14	-.01	-.71	.07	-.99	.12	-1.11	-.28	-1.34
22	1.20	.14	.99	.09	.14	-.93	-.02	-1.30	.06	-1.26	-.08	-.76
23	1.17	.25	1.49	.82	.13	-1.13	.14	-1.19	.22	-.95	-.16	-.91
24	1.14	.45	1.29	.25	.21	-1.24	.51	-0.71	.43	-.79	-.32	-.98
25	1.32	.69	.91	-.25	-.27	-1.92	.59	-1.02	-.25	-1.04	.10	-.38
26	1.93	1.10	1.15	.05	.11	-1.26	-.05	-2.19	.21	-.52	.28	-.30
27	2.09	.28	1.18	-.21	.26	-.87	-1.20	---	-.18	-1.05	-.12	-.70
28	.02	---	1.20	-.35	.19	-1.22	-.45	-1.33	-.95	-1.77	-.13	-.98
29	-1.36	-2.19	1.14	-.35	.05	-1.24	-.47	-1.19	---	---	-.02	-1.07
30	-1.71	---	1.24	.05	.42	-.49	-.24	-1.10	---	---	.21	-.79
31	-.77	---	---	---	.58	-.96	.19	-.61	---	---	.66	-.34
MONTH	2.09	-2.19	1.53	-.84	1.38	-1.92	1.09	-2.19	.97	-1.77	.92	-1.81

08077690 HIGHLAND BAYOU DIVERSION CHANNEL NEAR HITCHCOCK, TX--Continued

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	0.61	-0.51	1.09	-0.20	0.85	0.39	0.46	-0.54	-0.37	-1.46	0.84	-0.30
2	.87	-.59	.84	-.34	.72	.07	.27	-.99	-.34	-1.45	.98	-.43
3	1.59	.12	.85	.01	.81	-.04	-.11	-1.22	.09	-1.35	.80	-.14
4	1.49	.39	.71	.17	.87	-.04	.12	-1.18	.20	-1.05	.68	-.19
5	.90	.07	1.00	.35	1.10	.05	.32	-.94	.54	-.95	.42	-.27
6	.77	-.12	.82	.21	1.07	-.04	.47	-.77	.31	-.84	.25	-.37
7	.47	-.24	1.04	.12	.86	-.25	.42	-.80	.17	-.77	.61	-.12
8	.22	-.52	1.14	.13	1.17	-.34	.31	-.90	.24	-.74	.49	-.35
9	.49	-.62	1.21	.06	1.08	-.17	.50	-.74	.14	-.50	.60	-.29
10	.76	-.27	1.12	-.10	.96	-.21	.51	-.56	-.02	-.54	.91	-.13
11	.79	-.24	1.15	-.14	.72	-.21	.12	-.65	-.10	-1.00	.94	-.43
12	.53	-.19	.71	-.46	.42	-.78	.24	-.46	.27	-.74	.63	-.68
13	.58	-.51	.57	-.56	.56	-.97	.29	-.42	.35	-.72	.58	-.57
14	.84	-.18	.95	-.50	-.02	-.87	.25	-.44	.53	-.71	.68	-.43
15	.64	-.53	1.33	-.19	.18	-.66	.07	-.71	.42	-1.00	.83	-.29
16	.42	-.74	1.60	.48	.16	-.39	.17	-.97	.24	-1.25	.79	-.26
17	.67	-.77	1.68	.46	.26	-.54	.04	-1.18	.10	-1.26	.91	-.17
18	.93	-.04	.97	-.19	.48	-.62	.14	-1.14	-.33	-1.44	.92	-.18
19	.95	.06	.20	-.59	.41	-.73	.05	-1.24	.06	-1.63	.85	-.01
20	.89	-.68	.53	-.13	.53	-.87	-.05	-1.33	-.03	-1.17	.99	.21
21	-.24	-.94	.76	-.18	.62	-.92	.12	-1.36	.34	-1.10	.90	.08
22	.05	-.67	1.08	-.11	.80	-.83	.08	-1.26	.24	-.72	1.03	.20
23	.54	-.57	1.37	-.03	.85	-.73	.03	-1.25	.63	-.28	1.03	-.04
24	.36	-.51	1.10	-.20	.78	-.62	-.12	-1.22	.06	-.71	1.12	.13
25	.77	-.52	1.17	-.55	1.66	-.40	-.34	-1.03	.01	-.79	1.25	.11
26	.85	-.51	.71	-.74	1.55	.40	-.50	-1.02	.05	-.85	1.29	.10
27	1.07	-.33	.69	-.60	.82	.02	-.41	-1.13	.14	-.96	1.03	-.08
28	.94	-.52	.57	-.73	.25	-.25	-.53	-1.29	.36	-.97	1.29	.09
29	1.02	-.65	.59	-.68	.20	-.35	-.44	-1.32	.38	-.52	1.55	.48
30	.99	-.17	.63	-.33	.41	-.35	-.44	-1.53	.65	-.45	1.32	.26
31	---	---	.79	.25	---	---	-.32	-1.36	.78	-.32	---	---
MONTH	1.59	-.94	1.68	-.74	1.66	-.97	.51	-1.53	.78	-1.63	1.55	-.68
YEAR	2.09	-2.19										

08078000 CHOCOLATE BAYOU NEAR ALVIN, TX

LOCATION.--Lat 29°22'09", long 95°19'14", Brazoria County, Hydrologic Unit 12040204, on right bank 800 ft downstream from bridge on Farm Road 1462, 5.9 mi southwest of Alvin, and 6.9 mi upstream from State Highway 35.

DRAINAGE AREA.--87.7 mi^2. During extreme flooding, overflow from about 11 mi^2 of the Mustang Bayou drainage basin enters the Chocolate Bayou basin upstream from gage.

PERIOD OF RECORD.--August to October 1944 and March to December 1946 (low-water records during irrigation season), January 1947 to February 1958, March 1958 to February 1959 (discharge measurements only), March 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 10.31 ft above National Geodetic Vertical Datum of 1929. Prior to May 3, 1959, nonrecording gage or water-stage recorders located at various sites from 900 to 1,400 ft upstream and at datum 3.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. Stage discharge relationship is affected by seasonal vegetal growth during most years. Large area of riceland above station is irrigated with water from the Brazos River. Low flow from April to October is largely drainage from these irrigated lands. Diversions for irrigation occur above station.

AVERAGE DISCHARGE.--37 years (water years 1948-57, 1960-86), 108 ft^3/s, (78,250 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,500 ft^3/s July 26, 1979 (gage height, 23.88 ft); no flow at times. Flood of Oct. 8, 1949, reached a stage of 21.80 ft, present datum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 14, 1939, reached a stage of 22.9 ft, former site and present datum, adjusted from floodmark 1,700 ft to right and 550 ft upstream from present gage, on basis of slope of flood of Oct. 8, 1949, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 13	1500	*1,210	*13.61	No other peak greater than base discharge.			

Minimum daily discharge, 1.2 ft^3/s Oct. 11 (result of pumpage).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	107	99	38	12	8.7	9.4	3.8	37	25	53	46	15
2	51	201	42	11	8.6	8.9	1.9	95	23	47	45	15
3	24	158	22	11	8.2	8.2	2.3	206	25	47	41	13
4	13	79	16	10	580	11	2.2	66	24	46	50	11
5	7.4	43	15	8.7	1100	10	3.0	18	28	43	52	11
6	4.0	27	12	8.9	550	8.7	3.0	7.6	91	45	56	20
7	2.3	20	11	9.7	138	8.5	2.1	3.2	203	55	62	57
8	1.8	15	10	11	67	8.1	8.1	2.3	650	111	50	54
9	1.5	13	10	13	40	7.4	15	2.4	1140	104	54	48
10	1.4	11	10	19	34	7.8	57	165	741	89	65	31
11	1.2	40	84	24	28	6.1	102	257	530	76	62	19
12	1.4	928	494	19	24	9.1	22	89	305	58	63	12
13	2.2	1190	347	15	20	9.7	19	27	134	44	62	8.9
14	7.0	1020	138	12	18	8.7	12	9.7	91	42	58	8.6
15	12	373	66	12	16	7.4	5.0	4.6	61	41	58	7.5
16	15	213	41	11	16	9.6	3.0	3.6	131	38	57	4.7
17	9.4	133	29	19	15	6.4	4.0	8.6	98	40	39	4.5
18	5.9	80	26	21	14	7.0	5.6	62	298	34	33	3.2
19	33	53	24	17	12	11	6.0	33	125	37	32	3.8
20	448	35	20	14	12	12	12	22	121	43	26	8.6
21	248	25	17	13	11	6.5	18	18	80	38	22	12
22	325	19	16	12	9.8	5.3	25	16	66	35	25	16
23	245	16	15	11	10	4.4	9.4	16	72	36	51	20
24	238	15	14	9.4	10	3.6	5.0	14	59	30	86	20
25	126	20	12	9.2	9.8	7.0	5.3	26	45	32	54	15
26	94	25	12	8.7	9.6	3.7	9.9	167	50	36	35	10
27	56	21	12	8.2	8.4	7.2	12	977	53	35	23	8.3
28	181	29	12	7.8	7.6	5.9	14	642	50	43	17	6.8
29	574	31	12	7.6	---	3.2	23	204	50	48	21	7.0
30	263	23	12	8.4	---	3.1	17	80	51	52	18	8.4
31	164	---	12	8.7	---	6.2	---	38	---	44	13	---
TOTAL	3262.5	4955	1601	382.3	2785.7	231.1	427.6	3317.0	5420	1522	1376	479.3
MEAN	105	165	51.6	12.3	99.5	7.45	14.3	107	181	49.1	44.4	16.0
MAX	574	1190	494	24	1100	12	102	977	1140	111	86	57
MIN	1.2	11	10	7.6	7.6	3.1	1.9	2.3	23	30	13	3.2
AC-FT	6470	9830	3180	758	5530	458	848	6580	10750	3020	2730	951

CAL YR 1985 TOTAL 36960.27 MEAN 101 MAX 2340 MIN .69 AC-FT 73310
WTR YR 1986 TOTAL 25759.5 MEAN 70.6 MAX 1190 MIN 1.2 AC-FT 51090

08079575 NORTH FORK DOUBLE MOUNTAIN FORK BRAZOS RIVER NEAR POST, TX

LOCATION.--Lat 33°14'52", long 101°20'24", Garza County, Hydrologic Unit 12050003, at right upstream end of bridge on Farm Road 651 and 4.4 mi northeast of Post.

DRAINAGE AREA.--438 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,440 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. No known diversion above station. .

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,320 ft³/s May 20, 1985 (gage height, 8.98 ft, from floodmarks), on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,100 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 10	0130	3,120	8.02	Aug. 15	0200	2,610	7.60
June 8	0700	*3,370	*8.23				

Minimum daily discharge, no flow May 21-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	176	28	22	18	8.0	11	7.1	39	79	40	.13	.82
2	148	30	22	14	6.3	11	6.3	16	407	45	.07	3.9
3	103	28	19	14	7.1	10	6.3	12	118	248	.10	10
4	89	30	18	11	8.0	10	6.3	12	24	124	.07	118
5	85	28	19	11	10	8.0	8.0	7.1	30	36	.02	392
6	79	26	19	9.0	11	9.2	10	5.0	112	26	8.6	423
7	61	26	17	10	15	9.7	9.0	3.4	34	24	19	162
8	32	24	16	8.0	18	8.9	8.0	1.6	401	16	22	85
9	724	24	18	6.3	22	5.6	7.1	1.9	366	18	28	58
10	859	24	17	6.3	18	4.4	6.3	1.9	308	16	32	43
11	636	26	18	6.3	15	5.0	5.6	.55	122	14	22	28
12	223	26	21	9.0	12	6.3	5.0	.36	61	14	26	21
13	229	24	22	8.0	24	8.0	5.6	.22	32	11	28	19
14	181	28	28	6.3	18	6.3	6.3	.07	22	9.0	24	19
15	126	26	21	8.0	16	8.0	5.9	.04	12	9.0	1720	16
16	110	28	19	10	19	12	3.9	.04	6.3	6.3	516	12
17	503	26	18	10	16	11	2.6	.13	64	5.0	139	61
18	131	24	21	10	14	12	2.2	.36	114	3.9	55	15
19	67	22	21	14	11	15	4.4	.07	50	2.2	32	12
20	55	24	18	11	11	17	21	.01	76	1.2	21	15
21	45	22	16	11	10	14	11	.00	76	.82	15	12
22	43	21	14	13	9.0	9.7	44	.00	156	3.0	21	14
23	40	21	16	12	8.0	8.0	2.2	.00	232	2.2	8.0	10
24	38	22	19	11	10	8.0	1.4	33	405	1.2	2.2	12
25	37	22	22	11	11	9.0	1.2	146	178	3.0	1.6	127
26	34	22	16	12	12	7.1	1.2	38	96	5.0	1.2	107
27	32	22	15	11	14	6.3	1.2	40	61	7.1	2.2	36
28	30	22	12	11	12	7.1	.98	47	36	5.0	3.9	22
29	28	22	15	11	---	7.1	2.2	55	36	4.4	3.9	15
30	21	22	16	11	---	9.0	31	53	36	3.9	1.9	569
31	29	---	16	10	---	8.0	---	50	---	1.2	6.3	---
TOTAL	4994	740	571	324.2	365.4	281.7	233.28	563.75	3750.3	705.42	2760.19	2437.72
MEAN	161	24.7	18.4	10.5	13.1	9.09	7.78	18.2	125	22.8	89.0	81.3
MAX	859	30	28	18	24	17	44	146	407	248	1720	569
MIN	21	21	12	6.3	6.3	4.4	.98	.00	6.3	.82	.02	.82
AC-FT	9910	1470	1130	643	725	559	463	1120	7440	1400	5470	4840

CAL YR 1985 TOTAL 17612.13 MEAN 48.3 MAX 859 MIN .00 AC-FT 34930
WTR YR 1986 TOTAL 17726.96 MEAN 48.6 MAX 1720 MIN .00 AC-FT 35160

08079575 NORTH FORK DOUBLE MOUNTAIN FORK BRAZOS RIVER NEAR POST, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: October 1983 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1983 to current year.
WATER TEMPERATURES: October 1983 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,980 microsiemens Aug. 1, 1986; minimum daily, 385 microsiemens Aug. 15, 1986.
WATER TEMPERATURES: Maximum daily, 35.0°C July 9, Aug. 1, 1985, and Aug. 1, 1986; minimum daily, 0.0°C on several days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,980 microsiemens Aug. 1; minimum daily 385 microsiemens Aug. 15.
WATER TEMPERATURES: Maximum daily, 35.0°C Aug. 1; minimum daily, 1.0°C Dec. 11, Feb. 9, 12.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT									
10...	1035	1020	463	14.0	93	14	19	11	49
DEC									
10...	0930	18	2230	4.0	510	200	69	81	290
JAN									
22...	0940	13	2440	3.5	580	230	77	93	330
APR									
15...	0855	6.2	3100	11.5	630	280	70	110	460
JUN									
03...	1110	75	1910	22.5	410	210	48	70	230
AUG									
15...	1600	2430	352	25.0	87	0	20	9.0	39

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT								
10...	2	5.5	79	50	56	0.9	7.1	250
DEC								
10...	6	17	310	330	370	3.5	10	1400
JAN								
22...	6	17	344	360	410	3.8	16	1500
APR								
15...	8	22	346	500	560	4.8	15	1900
JUN								
03...	5	19	202	290	300	2.9	13	1100
AUG								
15...	2	5.0	92	33	37	0.9	7.8	210

MONTHLY AND ANNUAL MEANS AND LOADS FOR OCTOBER 1985 TO SEPTEMBER 1986

MONTH	YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-MHOS)	DIS-SOLVED SOLIDS (MG/L)	DIS-SOLVED SOLIDS (TONS)	DIS-SOLVED CHLORIDE (MG/L)	DIS-SOLVED CHLORIDE (TONS)	DIS-SOLVED SULFATE (MG/L)	DIS-SOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT.	1985	4994	1160	694	9360	200	2730	150	2030	270
NOV.	1985	740	2160	1310	2630	370	734	320	637	490
DEC.	1985	571	2190	1330	2050	370	572	320	498	490
JAN.	1986	324.2	2370	1440	1260	400	350	360	316	530
FEB.	1986	365.4	2430	1490	1470	410	404	380	370	540
MAR.	1986	281.7	2750	1690	1290	460	348	450	339	600
APR.	1986	233.28	2830	1750	1100	470	296	470	294	620
MAY	1986	563.75	2310	1410	2150	390	592	360	543	520
JUNE	1986	3750.3	1640	986	9980	280	2850	230	2290	380
JULY	1986	705.42	1890	1140	2170	320	614	270	514	430
AUG.	1986	2760.19	778	463	3450	140	1010	98	731	180
SEPT	1986	2437.72	1410	845	5560	240	1600	190	1250	330
TOTAL		17726.96	**	**	42500	**	12100	**	9810	**
WTD.AVG.		49	1470	887	**	250	**	200	**	340

08079575 NORTH FORK DOUBLE MOUNTAIN FORK BRAZOS RIVER NEAR POST, TX--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
EQUIVALENT MEAN

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1800	2120	2290	2190	2460	2680	2910	1930	1890	2190	3980	2190
2	1860	2100	2100	2220	2500	2650	2940	2650	1330	1710	3530	1420
3	1900	2080	2170	2240	2540	2700	3040	2740	2030	1370	3090	1650
4	1970	2120	2220	2270	2500	2660	2920	2870	2290	1880	3220	647
5	1950	2130	2210	2320	2420	2710	2860	3120	2340	2210	3570	1150
6	1970	2140	2170	2310	2480	2710	2750	3260	2010	2230	2640	1720
7	2110	2120	2180	2320	2450	2680	2970	3070	2270	2210	2280	1820
8	2100	2160	2190	2350	2370	2730	3160	3480	690	2290	2210	2060
9	575	2150	2180	2340	2440	2820	3130	3390	1600	2250	2240	2200
10	538	2160	2190	2330	2460	2820	3030	3270	2130	2230	2120	2260
11	630	2160	2180	2350	2310	2690	3110	3490	2370	2350	2390	2380
12	1530	2180	2110	2320	2320	2740	3050	3420	2380	2330	2230	2380
13	1560	2160	2120	2360	2260	2660	3180	3500	2480	2430	2250	2350
14	1490	2100	2430	2440	2400	2730	3170	3550	2520	2450	2260	2320
15	1770	2110	2300	2400	2330	2740	3130	3280	2650	2460	385	2420
16	1900	2080	2190	2390	2310	2700	3210	2910	2740	2700	744	2480
17	950	2100	2180	2380	2290	2600	3360	3920	1270	2780	1860	2000
18	1420	2170	2170	2420	2330	2730	3290	3720	970	2770	1960	2470
19	1750	2180	2150	2430	2380	2640	3140	3160	2100	2780	2100	2430
20	1890	2130	2170	2440	2430	2690	2800	3550	2220	3020	2200	2360
21	2000	2120	2180	2410	2500	2740	2990	---	2160	3070	2230	2390
22	2050	2180	2190	2400	2560	2760	2440	---	1500	2960	2270	2460
23	2040	2280	2170	2390	2640	2850	3060	---	1200	3040	2310	2520
24	2010	2290	2110	2400	2620	2880	3130	2560	1450	3080	2360	2110
25	2030	2280	2010	2420	2610	2830	3120	1530	1900	2780	2240	1600
26	2000	2270	2080	2410	2590	2900	3070	2340	2070	2670	2450	1700
27	2010	2270	2180	2440	2600	2900	3290	3140	2170	2600	1720	1820
28	2030	2260	2200	2480	2590	2920	3250	2660	2280	2720	1850	1920
29	2080	2230	2210	2450	---	2870	3040	2480	2310	2740	2010	1960
30	2090	2240	2240	2430	---	2800	2460	2490	2400	2650	2170	580
31	2100	---	2190	2420	---	3080	---	2560	---	3220	2050	---
MEAN	1750	2170	2180	2370	2450	2760	3030	3000	1990	2520	2290	1990

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.0	11.0	3.0	8.0	17.0	10.0	18.0	24.5	22.0	32.0	35.0	19.0
2	19.0	17.0	2.0	9.0	15.0	14.0	17.0	25.5	21.0	23.5	---	24.0
3	24.0	10.5	7.5	8.0	14.0	16.5	15.0	20.0	28.0	26.0	21.5	22.0
4	18.0	17.0	14.0	6.0	15.5	19.0	18.5	23.0	30.0	31.0	---	19.5
5	11.0	16.5	9.0	3.0	12.0	15.0	16.0	24.0	33.0	31.0	---	25.0
6	13.0	17.0	9.0	10.0	11.0	16.0	22.5	26.0	26.5	30.0	31.0	25.0
7	22.0	17.5	4.5	3.0	6.0	15.5	23.0	27.0	24.0	23.0	29.0	19.0
8	22.0	17.0	5.0	4.0	4.5	17.0	20.0	23.0	20.0	32.0	27.0	19.5
9	20.0	18.0	14.5	6.0	1.0	17.0	14.0	25.0	28.0	24.0	24.0	25.0
10	16.5	10.0	3.0	8.5	4.0	21.5	21.0	26.0	30.0	29.5	24.0	27.0
11	20.0	10.0	1.0	11.0	2.0	12.0	20.5	21.0	27.0	26.0	29.0	25.0
12	21.5	14.0	1.5	7.0	1.0	19.0	20.0	23.5	32.5	25.0	27.5	27.0
13	20.0	16.0	5.5	10.0	10.0	15.5	22.0	26.5	26.5	30.0	25.0	30.0
14	17.5	12.0	1.5	10.5	10.0	16.0	22.5	25.0	28.0	27.0	27.0	23.0
15	23.0	12.0	4.5	12.0	16.0	13.0	18.0	23.0	27.0	25.5	25.5	27.0
16	20.0	11.0	6.5	11.5	10.5	14.0	21.0	24.0	30.5	26.5	24.5	26.0
17	18.0	17.0	8.5	13.0	8.0	15.0	18.0	14.5	28.0	28.0	31.5	30.0
18	24.0	15.0	10.0	11.0	17.5	15.5	21.0	18.0	27.0	30.0	31.0	26.0
19	22.0	9.0	9.0	8.0	18.0	16.0	14.0	20.5	22.0	---	31.0	29.0
20	17.0	8.0	9.0	17.5	21.5	18.0	18.0	---	28.0	34.0	29.0	24.0
21	21.0	9.0	10.0	9.5	15.5	18.5	20.0	---	29.0	31.0	29.0	24.0
22	23.5	11.0	10.5	7.5	10.5	17.0	25.0	---	25.0	28.0	29.0	27.0
23	20.5	9.0	15.0	10.5	11.0	19.0	21.0	---	28.0	24.0	26.0	27.0
24	20.0	8.5	5.0	12.0	19.0	17.5	24.0	---	27.0	27.0	26.0	24.0
25	22.0	18.0	4.5	10.0	19.5	19.5	24.5	21.5	25.0	27.0	24.5	24.0
26	22.5	15.5	9.0	9.0	24.5	20.0	21.0	17.0	29.0	28.0	26.5	26.0
27	19.0	9.0	13.0	10.0	13.0	20.5	19.5	24.0	32.0	29.0	25.0	28.0
28	22.0	7.5	10.0	13.5	19.0	19.5	24.0	28.5	30.0	29.0	22.0	27.0
29	18.0	8.0	5.0	10.5	---	16.5	26.0	20.0	30.0	26.0	23.0	24.0
30	18.0	12.0	11.0	12.0	---	19.5	24.0	24.0	31.0	21.0	21.0	21.0
31	20.0	---	10.0	17.0	---	19.0	---	19.5	---	34.0	20.0	---
MEAN	20.0	13.0	7.5	9.5	12.5	17.0	20.5	23.0	27.5	28.0	26.5	25.0

08079600 DOUBLE MOUNTAIN FORK BRAZOS RIVER AT JUSTICEBURG, TX

LOCATION.--Lat 33°02'18", long 101°11'50", Garza County, Hydrologic Unit 12050004, on right bank at downstream side of bridge on U.S. Highway 84 at Justiceburg, 250 ft downstream from Panhandle and Santa Fe Railroad, and at mile 143.4 measured from confluence with Salt Fork Brazos River at mile 923.2 on the Brazos River.

DRAINAGE AREA.--1,466 mi², of which 1,222 mi² probably is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1961 to current year. Prior to October 1963, published as Sand Creek or South Fork Double Mountain Fork Brazos River at Justiceburg.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 2,222.47 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 11-14, Dec. 27 to Jan. 27, Feb. 20 to Mar. 1, Mar. 17-19, June 18-26, Sept. 13, 14, and Sept. 18-30. Records fair prior to June 3, except those for estimated discharges, which are poor. Records after June 3 are poor.

AVERAGE DISCHARGE.--24 years (water years 1963-86), 28.4 ft³/s (1.58 in/yr), 20,580 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,600 ft³/s May 6, 1969 (gage height, 19.8 ft, from floodmarks); no flow at times most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stages since at least 1895, 25.8 ft in 1914 and 22.2 ft in September 1955, from information by local resident. Flood in July 1961 reached a stage of 18.2 ft, from floodmark.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,100 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 9	2200	13,900	12.07	Aug. 15	1700	3,340	a8.62
Oct. 18	0200	3,840	a8.72	Sept. 4	1430	*18,900	*a14.10
May 25	0230	3,550	8.72				

a From floodmarks.

Minimum daily discharge, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	17	1.0	.10	.02	.01	.00	.00	60	55	.00	142
2	.03	19	.74	.10	.02	.00	.00	.00	77	51	.00	23
3	.01	2.2	.63	.10	.02	.00	.00	.00	50	78	.00	196
4	.00	1.8	.63	.10	.02	.00	.00	.00	8.3	15	.00	5710
5	.00	1.4	.53	.10	.03	.00	.00	.00	51	.24	1.0	541
6	.00	1.4	.44	.05	.03	.00	.00	.00	217	.05	.00	87
7	.00	1.4	.30	.05	.03	.00	.00	.00	53	.01	.00	29
8	.00	1.3	.24	.05	.02	.00	.00	.00	84	.00	92	22
9	3600	1.0	.20	.05	.01	.00	.00	.00	49	.00	13	16
10	2510	.86	.20	.05	.00	.00	.00	.00	15	.00	6.7	12
11	72	.74	.20	.05	.00	.00	.00	.00	5.2	.00	.14	10
12	80	1.3	.20	.05	.00	.00	.00	.00	2.2	.00	.00	8.8
13	13	2.0	.20	.05	.02	.00	.01	.00	.99	.00	.00	7.8
14	27	21	.20	.05	.02	.00	.01	.00	.86	.00	.00	6.4
15	12	17	.15	.05	.01	.07	.01	.00	.63	.00	1000	38
16	5.5	5.9	.15	.03	.01	.02	.00	.00	1.4	.00	88	42
17	899	2.9	.15	.03	.01	.01	.00	.00	18	.00	.10	19
18	1220	2.7	.15	.03	.01	.01	.00	.00	1.0	.00	.01	15
19	51	1.3	.15	.03	.01	.01	86	.00	.80	.00	.00	12
20	15	.86	.15	.03	.01	.00	5.0	.00	.60	.00	.00	10
21	8.8	.74	.15	.03	.01	.00	.01	.00	.50	.00	.00	8.3
22	6.8	.63	.15	.03	.01	.00	.00	.00	.40	.00	.13	6.4
23	6.8	.63	.15	.03	.01	.00	.00	.00	.30	.00	.03	4.8
24	4.8	.63	.15	.03	.01	.00	.00	7.3	.20	.00	.00	3.5
25	4.4	.63	.15	.03	.01	.00	.00	362	1.0	.00	.10	2.4
26	4.1	.63	.10	.02	.01	.00	.00	35	.20	.00	25	2.0
27	3.8	.63	.10	.02	.01	.00	.00	187	.00	.00	10	1.5
28	3.2	.63	.10	.02	.01	.00	.00	4.8	.00	.00	338	1.0
29	2.9	.53	.10	.02	---	.00	.00	247	.00	.00	38	10
30	2.4	1.0	.10	.02	---	.00	.00	267	.00	.00	2.8	5.0
31	2.0	---	.10	.02	---	.00	---	13	---	.00	198	---
TOTAL	8554.59	109.74	7.96	1.42	.38	.13	91.04	1123.10	698.58	199.30	1813.01	6991.9
MEAN	276	3.66	.26	.05	.01	.00	3.03	36.2	23.3	6.43	58.5	233
MAX	3600	21	1.0	.10	.03	.07	86	362	217	78	1000	5710
MIN	.00	.53	.10	.02	.00	.00	.00	.00	.00	.00	.00	1.0
CFSM	1.13	.01	.00	.00	.00	.00	.01	.15	.10	.03	.24	.95
IN.	1.30	.02	.00	.00	.00	.00	.01	.17	.11	.03	.28	1.07
AC-FT	16970	218	16	2.8	.7	.3	181	2230	1390	395	3600	13870

CAL YR 1985 TOTAL 16078.46 MEAN 44.1 MAX 3600 MIN .00 CFSM .18 IN. 2.45 AC-FT 31890
WTR YR 1986 TOTAL 19591.15 MEAN 53.7 MAX 5710 MIN .00 CFSM .22 IN. 2.99 AC-FT 38860

08079600 DOUBLE MOUNTAIN FORK BRAZOS RIVER AT JUSTICEBURG, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.-- Chemical analyses: December 1964 to September 1975, October 1975 to current year. Sediment analyses: June 1977 to June 1982.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1975 to current year.
WATER TEMPERATURES: October 1975 to current year.

REMARKS.--Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the Geological Survey District office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 26,800 microsiemens Mar. 5, 1982; minimum daily, 370 microsiemens Oct. 20, 1983.
WATER TEMPERATURES: Minimum daily, 32.5°C July 4, 1978; minimum daily, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 25,500 microsiemens Apr. 15; minimum daily, 380 microsiemens Oct. 18.
WATER TEMPERATURES: Maximum daily, 28.0°C July 4; minimum daily, 0.0°C Jan. 7, 8, 9.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT 29...	0730	3.0	4970	13.0	450	260	110	43	950
DEC 10...	0810	0.21	13200	4.0	870	650	210	83	2600
JAN 22...	0815	0.03	16600	3.0	1100	840	240	110	3400
FEB 27...	1320	0.01	19200	13.0	1400	1200	310	150	4100
JUN 03...	0855	48	763	19.0	67	0	19	4.7	120
SEP 04...	1615	10600	356	21.5	34	0	9.6	2.5	70

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT 29...	20	8.9	187	290	1500	1.4	11	3000
DEC 10...	40	8.6	217	500	4400	1.2	9.2	7900
JAN 22...	47	10	209	640	5400	1.2	8.4	9900
FEB 27...	49	12	194	780	7000	1.3	9.0	12000
JUN 03...	7	3.6	102	64	110	0.5	9.8	390
SEP 04...	5	3.0	108	35	31	0.8	9.2	230

MONTHLY AND ANNUAL MEANS AND LOADS FOR OCTOBER 1985 TO SEPTEMBER 1986

MONTH	YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-MHOS)	DIS-SOLVED SOLIDS (MG/L)	DIS-SOLVED SOLIDS (TONS)	DIS-SOLVED CHLORIDE (MG/L)	DIS-SOLVED CHLORIDE (TONS)	DIS-SOLVED SULFATE (MG/L)	DIS-SOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT.	1985	8554.59	492	281	6490	150	3430	13	310	28
NOV.	1985	109.74	3770	2200	653	1200	347	120	36	230
DEC.	1985	7.96	12000	7240	156	3900	83	460	9.8	*
JAN.	1986	1.42	16400	10100	39	5400	21	680	2.6	*
FEB.	1986	0.38	17500	10800	11	5800	6.0	750	0.8	*
MAR.	1986	0.13	10600	6340	2.2	3400	1.2	390	0.1	*
APR.	1986	91.04	2560	1470	363	780	192	74	18	150
MAY	1986	1123.10	1020	585	1770	310	938	29	87	59
JUNE	1986	698.58	1330	769	1450	410	768	38	73	78
JULY	1986	199.30	1690	974	524	520	277	48	26	98
AUG.	1986	1813.01	761	435	2130	230	1130	21	103	43
SEPT	1986	6991.9	584	335	6330	180	3350	16	310	34
TOTAL		19591.15	**	**	19900	**	10500	**	976	**
WTD.AVG.		54	656	377	**	200	**	18	**	38

08079600 DOUBLE MOUNTAIN FORK BRAZOS RIVER AT JUSTICEBURG, TX--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
EQUIVALENT MEAN

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10800	4500	7240	16600	16000	19500	---	---	3180	2510	---	410
2	13600	2170	9850	15500	15300	---	---	---	805	2480	---	1260
3	14100	2760	12100	15600	15200	---	---	---	825	693	---	830
4	---	4270	12600	16200	16700	---	---	---	2580	1160	---	406
5	---	5450	13400	16400	14900	---	---	---	1380	3690	740	658
6	---	6860	13700	16200	18400	---	---	---	1010	8130	---	1550
7	---	7460	12200	16400	17900	---	---	---	640	10400	---	2240
8	---	8300	13300	18400	16200	---	---	---	750	---	1560	2330
9	460	8610	14300	17400	17600	---	---	---	1110	---	650	2960
10	380	9000	13600	17100	---	---	---	---	1980	---	5070	3460
11	650	9850	13800	16500	---	---	---	---	4120	---	7650	3820
12	780	8350	13700	16000	---	---	---	---	6520	---	---	4180
13	1400	6660	14200	16400	19100	---	23800	---	8420	---	---	4620
14	1250	1160	14600	16000	18800	---	24900	---	9840	---	---	5060
15	1500	2020	12200	16100	17300	9510	25500	---	11400	---	800	2750
16	2700	3240	8710	17000	17500	9760	---	---	8760	---	744	1650
17	750	5760	9100	16800	17700	10100	---	---	2100	---	2320	1250
18	380	7250	9410	16600	18200	10600	---	---	6720	---	6560	2290
19	770	8100	11000	16500	18600	11200	2520	---	1200	---	---	3660
20	1400	9250	11800	16100	18500	---	3060	---	4070	---	---	4810
21	2000	10800	12800	16500	18700	---	7650	---	7660	---	---	5770
22	2500	11100	13000	16900	18900	---	---	---	12800	---	1380	6540
23	3250	11200	14700	16600	19000	---	---	---	12400	---	1720	7390
24	3610	11500	13900	16200	18800	---	---	10500	13300	---	---	8490
25	3850	11600	14800	16400	19000	---	---	1360	8750	---	1410	9170
26	4000	11800	15300	16800	19100	---	---	1560	11200	---	563	10000
27	4330	9970	14400	17000	19200	---	---	806	---	---	675	10200
28	4640	7430	14900	16700	19400	---	---	1330	---	---	506	11200
29	4970	4980	15300	16900	---	---	---	725	---	---	742	9820
30	5580	5720	15300	17000	---	---	---	632	---	---	1940	6250
31	5050	---	15200	16700	---	---	---	1170	---	---	504	---
MEAN	3670	7240	12900	16600	17800	11800	14600	2260	5520	4150	1970	4500

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.5	10.0	1.0	13.0	---	---	---	---	18.0	22.0	---	20.5
2	13.0	7.0	1.5	5.0	13.0	---	---	---	20.0	23.0	---	22.0
3	---	7.0	8.0	5.0	12.0	---	---	---	19.0	24.5	---	24.0
4	---	12.0	10.0	3.5	6.5	---	---	---	20.0	28.0	---	21.5
5	---	9.5	10.0	3.0	9.5	---	---	---	22.0	20.5	21.0	21.0
6	---	10.0	11.0	2.5	---	---	---	---	23.5	23.0	---	20.0
7	---	7.0	6.0	.0	6.0	---	---	---	22.5	---	---	21.0
8	---	11.0	3.5	.0	1.0	---	---	---	21.0	---	26.0	17.0
9	20.0	14.0	---	.0	1.0	---	---	---	22.0	---	20.5	21.5
10	16.5	9.5	5.0	.5	---	---	---	---	22.0	---	21.0	22.5
11	16.0	6.5	2.5	1.0	---	---	---	---	19.0	---	20.5	27.0
12	16.5	9.0	2.0	1.5	---	---	---	---	19.0	---	---	26.0
13	18.0	14.0	---	1.5	1.0	---	---	---	20.5	---	---	23.0
14	17.0	11.0	1.0	4.0	6.0	---	---	---	21.0	---	---	22.0
15	18.0	15.0	1.0	4.0	6.0	11.5	---	---	22.5	---	22.0	22.0
16	13.0	7.0	5.0	7.0	10.0	---	---	---	21.5	---	23.0	20.0
17	17.0	7.0	9.0	5.0	8.5	---	---	---	19.0	---	23.0	22.0
18	16.0	12.0	4.0	6.5	10.0	---	---	---	23.0	---	23.5	21.0
19	16.5	8.0	8.0	7.0	11.5	---	12.5	---	21.0	---	---	21.0
20	16.0	3.5	5.0	6.0	---	---	13.0	---	21.5	---	---	22.0
21	17.0	6.0	4.5	7.5	---	---	---	---	22.0	---	---	21.0
22	17.0	4.5	8.0	4.5	---	---	---	---	25.0	---	26.0	23.5
23	16.0	6.0	9.5	2.5	---	---	---	---	21.0	---	22.0	22.0
24	15.0	7.0	8.0	6.0	---	---	---	---	21.0	---	---	24.0
25	16.0	10.0	1.0	4.0	---	---	---	18.0	20.0	---	21.0	18.0
26	17.5	13.0	1.5	3.5	---	---	---	17.0	20.5	---	20.5	22.0
27	---	15.5	2.5	5.0	---	---	---	16.0	---	---	24.0	21.0
28	---	17.0	3.5	4.0	---	---	---	15.0	---	---	20.0	21.0
29	---	14.0	2.0	6.0	---	---	---	18.5	---	---	22.0	21.5
30	---	11.0	4.5	5.0	---	---	---	18.0	---	---	19.5	21.0
31	---	---	6.0	10.0	---	---	---	17.5	---	---	21.0	---
MEAN	16.0	10.0	5.0	4.5	7.5	11.5	13.0	17.0	21.0	23.5	22.0	21.5

08080500 DOUBLE MOUNTAIN FORK BRAZOS RIVER NEAR ASPERMONT, TX
(National stream-quality accounting network)

LOCATION.--Lat 33°00'29", long 100°10'49", Stonewall County, Hydrologic Unit 12050004, on right bank at downstream side of bridge on U.S. Highway 83, 0.3 mi downstream from Hitson Creek, 10 mi south of Aspermont, and at mile 34.5 measured from confluence with Salt Fork Brazos River which is at mile 923.2 on the Brazos River.

DRAINAGE AREA.--8,796 mi², of which 6,932 mi² probably is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1923 to September 1934, June 1939 to current year.

REVISED RECORDS.--WSP 733: 1927(M). WRD TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,624.79 ft above National Geodetic Vertical Datum of 1929. Dec. 3, 1923, to Sept. 30, 1934, nonrecording gage at site 90 ft downstream at datum 2.0 ft higher, and June 8, 1939, to Aug. 12, 1972, water-stage recorder at present site and datum 2.0 ft higher.

REMARKS.--Estimated daily discharges: Oct. 26, Nov. 27 to Dec. 2, May 18, 25, 31, June 15, 22-25, 27-30, and Aug. 17-24. Records fair. There are small diversions above station for oilfield operation.

AVERAGE DISCHARGE.--57 years (water years 1925-34, 1940-86), 161 ft³/s (1.17 in/yr), 116,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 91,400 ft³/s Sept. 26, 1955 (gage height, 29.5 ft present datum); no flow at times most years.

Maximum stage since at least 1899, that of Sept. 26, 1955.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,800 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 5	1730	*13,700	*12.98	No other peak greater than base discharge.			

Minimum daily discharge, 0.50 ft³/s July 31 to Aug. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	77	36	26	14	12	8.0	34	439	96	.50	1340
2	49	73	36	26	15	12	14	24	288	169	.50	517
3	37	66	35	24	18	11	77	20	1760	897	.50	476
4	34	61	34	23	18	9.9	25	18	1040	1060	.50	981
5	35	57	32	22	22	9.3	11	14	1300	682	.50	7760
6	34	55	31	21	26	8.9	17	12	758	478	.50	2470
7	29	53	30	20	25	8.9	9.2	10	2490	435	17	1060
8	24	51	28	20	23	8.3	8.4	104	840	175	38	906
9	22	50	27	20	20	8.0	8.8	231	552	114	9.6	709
10	731	49	28	20	20	7.3	8.8	132	851	88	11	433
11	4020	45	27	19	19	7.7	8.8	52	412	70	9.6	378
12	1820	42	27	18	19	6.9	8.8	26	133	59	6.2	301
13	1520	45	27	17	18	7.4	8.8	25	114	44	3.6	260
14	777	49	30	18	17	8.7	8.8	20	106	41	3.8	226
15	680	48	29	17	17	8.6	8.8	16	100	34	9.2	388
16	638	46	29	18	17	7.9	8.8	11	92	30	1340	197
17	546	45	29	19	16	8.0	8.8	10	112	24	901	89
18	4840	44	30	19	16	8.0	8.8	10	823	21	420	81
19	3570	57	29	18	20	8.0	427	8.0	621	19	258	140
20	1060	49	30	17	19	8.0	753	6.6	435	16	250	148
21	631	46	31	17	17	8.0	325	5.0	232	15	228	156
22	410	44	29	17	17	8.0	162	3.3	165	17	215	138
23	306	42	28	16	16	8.0	68	2.2	148	8.8	108	121
24	224	41	28	16	16	8.0	57	1.8	140	8.0	77	114
25	174	40	26	16	15	8.0	43	1.7	135	6.6	143	110
26	148	39	25	15	14	8.0	74	3.6	133	4.1	378	1390
27	126	38	25	15	14	8.0	61	7.4	130	3.3	1230	335
28	106	38	23	15	13	8.0	43	26	128	1.8	1370	123
29	98	37	24	14	---	8.0	44	340	119	1.2	1600	96
30	96	37	24	14	---	8.0	40	655	106	.64	496	137
31	83	---	26	14	---	8.0	---	635	---	.50	253	---
TOTAL	22935	1464	893	571	501	262.8	2354.6	2464.6	14782	4618.94	9378.00	21580
MEAN	740	48.8	28.8	18.4	17.9	8.48	78.5	79.5	493	149	303	719
MAX	4840	77	36	26	26	12	753	655	2490	1060	1600	7760
MIN	22	37	23	14	13	6.9	8.0	1.7	92	.50	.50	81
CFSM	.40	.03	.02	.01	.01	.00	.04	.04	.26	.08	.16	.39
IN.	.46	.03	.02	.01	.01	.01	.05	.05	.30	.09	.19	.43
AC-FT	45490	2900	1770	1130	994	521	4670	4890	29320	9160	18600	42800

CAL YR 1985 TOTAL 70335.99 MEAN 193 MAX 4840 MIN .20 CFSM .10 IN. 1.40 AC-FT 139500
WTR YR 1986 TOTAL 81804.94 MEAN 224 MAX 7760 MIN .50 CFSM .12 IN. 1.63 AC-FT 162300

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WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: October 1948 to November 1951, October 1956 to September 1977. Chemical and biochemical analyses: June 1978 to current year. Sediment analyses: November 1949 tp November 1951, June 1978 to current year. Pesticide analyses: March to June 1979.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1948 to November 1951, October 1956 to current year.
WATER TEMPERATURES: November 1949 to November 1951, October 1956 to current year.

REMARKS.--Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the Geological Survey District office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 13,100 microsiemens July 29, 1980; minimum daily, 720 microsiemens Oct. 18, 1985
WATER TEMPERATURES: Maximum daily, 38.0°C July 18, 1966; minimum daily, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 10,200 microsiemens Apr. 11; minimum daily, 720 microsiemens Oct. 18.
WATER TEMPERATURES: Maximum daily, 30.0°C July 8; minimum daily, 1.0°C on several days during December, January, and February.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT 23...	1420	319	1680	8.30	22.0	830	10.2	125	0.1	1000	1300	400
DEC 04...	1100	57	5900	8.10	4.0	48	11.7	--	0.9	46	88	1200
FEB 05...	0950	26	6710	7.70	11.0	14	11.4	112	0.1	170	660	1600
APR 29...	1530	57	3080	8.20	28.0	500	8.1	--	2.9	640	940	920
JUN 18...	1400	590	1450	7.70	23.5	2300	9.6	120	4.3	5800	8400	440
AUG 20...	1025	220	958	7.90	27.0	5500	8.1	108	4.0	2800	3300	170

DATE	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT 23...	280	120	23	180	4	5.8	119	330	240	0.8	9.8	1080
DEC 04...	1100	330	100	830	11	10	148	1100	1300	1.0	12	4090
FEB 05...	1500	480	100	980	11	9.5	103	1500	1700	0.8	6.5	4650
APR 29...	840	260	65	300	4	8.5	81	870	420	0.6	9.2	2370
JUN 18...	370	130	28	120	3	6.5	71	380	170	0.7	7.8	984
AUG 20...	69	49	12	130	4	5.7	103	170	140	<0.1	9.4	564

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
OCT 23...	980	--	<0.01	0.13	0.36	0.05	0.54	0.9	0.58	<0.01	0.01	0.03
DEC 04...	3800	--	<0.01	0.15	0.20	0.22	0.2	0.4	0.02	<0.01	<0.01	--
FEB 05...	4900	--	<0.01	0.10	0.13	0.15	0.37	0.5	<0.01	<0.01	<0.01	--
APR 29...	2000	0.28	0.04	0.32	0.12	0.78	0.68	0.8	0.15	0.02	0.02	0.06
JUN 18...	890	--	<0.01	0.31	0.06	0.04	0.64	0.7	0.05	0.01	0.01	0.03
AUG 20...	580	0.37	0.09	0.46	0.21	0.44	0.39	0.6	0.12	0.01	<0.01	--

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WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)
OCT 23...	992	854	95	<10	4	180	<0.5	<1	<1	<3	2	<3
DEC 04...	72	11	94	--	--	--	--	--	--	--	--	--
FEB 05...	28	2.0	85	10	2	<100	<10	1	<1	1	<1	40
APR 29...	906	139	97	--	--	--	--	--	--	--	--	--
JUN 18...	6740	10700	94	<10	2	140	<0.5	<1	<1	<3	<1	4
AUG 20...	9780	5810	92	--	--	--	--	--	--	--	--	--

DATE	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
OCT 23...	<1	50	2	<0.1	<10	26	<1	<1	2600	17	10
DEC 04...	--	--	--	--	--	--	--	--	--	--	--
FEB 05...	2	130	90	0.2	6	2	1	<1	7900	30	10
APR 29...	--	--	--	--	--	--	--	--	--	--	--
JUN 18...	<5	38	<1	<0.1	<10	2	1	<1	2900	12	3
AUG 20...	--	--	--	--	--	--	--	--	--	--	--

MONTHLY AND ANNUAL MEANS AND LOADS FOR OCTOBER 1985 TO SEPTEMBER 1986

MONTH YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED SOLIDS (MG/L)	DISSOLVED SOLIDS (TONS)	DISSOLVED CHLORIDE (MG/L)	DISSOLVED CHLORIDE (TONS)	DISSOLVED SULFATE (MG/L)	DISSOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT. 1985	22935	1130	709	43900	200	12200	240	14700	240
NOV. 1985	1464	4700	3070	12100	960	3800	970	3840	1100
DEC. 1985	893	6000	3970	9580	1300	3120	1200	2960	1400
JAN. 1986	571	6690	4460	6880	1500	2290	1400	2100	1600
FEB. 1986	501	6800	4540	6140	1500	2050	1400	1870	1600
MAR. 1986	262.8	8450	5740	4070	2000	1430	1700	1210	2100
APR. 1986	2354.6	3520	2290	14500	700	4450	730	4650	800
MAY 1986	2464.6	2360	1520	10100	450	2980	490	3280	530
JUNE 1986	14782	1530	969	38700	270	10800	320	12900	330
JULY 1986	4618.94	1830	1170	14600	340	4240	380	4790	400
AUG. 1986	9378.00	1560	988	25000	280	7030	330	8330	340
SEPT 1986	21580	1600	1010	59100	290	16800	340	19600	350
TOTAL	81804.94	**	**	245000	**	71200	**	80300	**
WTD.AVG.	224	1730	1110	**	320	**	360	**	380

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SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
EQUIVALENT MEAN

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3640	3710	5770	6150	7330	7200	8950	4550	1590	2930	7860	1550
2	3630	3890	5810	5960	7250	7470	8770	5330	2170	2230	8080	1430
3	3240	4060	5830	5910	7110	7500	4240	6170	1470	1650	8260	2060
4	3650	4070	5930	6000	7150	7820	4130	6190	1670	1350	8180	1770
5	3610	4160	5920	6220	6980	7850	5620	7220	1510	1210	8230	1000
6	3650	4240	5900	6430	6620	8040	6930	7580	1320	1260	8310	971
7	3830	4330	5910	6610	6670	8050	7760	7930	980	1210	6070	1070
8	4020	4370	5940	6650	6710	8180	8000	2250	1040	1670	3520	1280
9	4550	4450	6060	6660	6740	8270	8160	1900	1250	1990	3630	1500
10	2200	4580	6070	6530	6780	8600	9370	2790	1480	2500	9700	1990
11	990	4670	6040	6700	6800	8570	10200	2820	1550	3140	9860	2310
12	1020	4750	6060	6770	6620	8760	8930	3300	1600	3720	5910	2700
13	1180	4680	6040	6810	6650	8790	9000	4240	2050	4260	5860	2940
14	1130	4570	6010	6920	6720	8340	8780	5030	2890	4900	6610	3160
15	1110	4620	6080	6820	6930	8480	8740	5850	2910	5350	5940	2530
16	1400	4740	6160	6730	7200	8850	8860	5890	2940	5830	1770	3570
17	1450	4910	6330	6680	7220	8890	8840	7090	2670	6240	1400	3850
18	720	5000	6050	6640	7250	8720	8950	7100	1740	6530	1140	4130
19	850	4730	6060	6690	7040	8800	3790	7120	1730	6760	1280	4210
20	870	4840	5860	6730	6620	8830	3000	7630	1690	7120	1420	4380
21	1030	4960	5730	6800	6160	8780	2710	7870	1670	7160	1530	4400
22	1240	5120	5780	6910	6250	8750	2190	8070	1650	7050	1660	4330
23	1570	5250	5840	6990	6370	8800	2200	8190	1840	7300	1780	4390
24	2000	5360	5910	7020	6480	8860	2590	8070	2100	7540	1890	4660
25	2360	5530	6060	7160	6420	8920	3660	8140	2500	7640	1620	4810
26	2650	5640	6070	7180	6680	8950	3390	6110	3040	7720	2500	1800
27	2980	5660	6080	7290	6640	8960	3870	4900	3080	7740	1560	2230
28	3210	5690	6240	7330	7160	8940	4270	2510	2400	7730	1720	3440
29	3400	5730	6220	7370	---	8930	3570	2280	2160	7720	1190	4620
30	3550	5720	6260	7380	---	8960	4120	1800	2350	7730	1070	5560
31	3720	---	6270	7460	---	8970	---	1500	---	8210	1090	---
MEAN	2400	4800	6010	6760	6810	8510	6120	5400	1970	5010	4210	2950

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.0	13.0	---	8.0	13.0	12.0	20.0	15.0	21.0	25.0	26.0	21.0
2	14.0	9.0	---	12.0	---	14.0	17.0	19.0	22.0	25.0	27.0	22.0
3	14.0	11.0	8.0	11.0	16.0	16.0	16.0	23.0	20.0	15.0	24.0	23.0
4	13.0	10.0	12.0	10.0	9.0	14.0	17.0	22.0	24.0	25.0	25.0	22.0
5	11.0	11.0	11.0	8.0	---	15.0	19.0	25.0	22.0	25.0	26.0	22.0
6	13.0	---	7.0	7.0	---	16.0	20.0	25.0	24.0	26.0	25.0	22.0
7	15.0	---	---	3.0	---	17.0	20.0	25.0	24.0	26.0	28.0	21.0
8	19.0	---	6.0	5.0	---	20.0	22.0	25.0	26.0	30.0	26.0	19.0
9	21.0	---	7.0	9.0	---	19.0	14.0	20.0	25.0	26.0	26.0	22.0
10	17.0	---	6.0	1.0	1.0	15.0	14.0	20.0	25.0	25.0	24.0	22.0
11	17.0	---	2.0	12.0	1.0	15.0	16.0	21.0	24.0	25.0	26.0	23.0
12	---	---	1.0	12.0	1.0	17.0	17.0	21.0	24.0	25.0	23.0	23.0
13	21.0	---	2.0	13.0	5.0	16.0	19.0	25.0	23.0	27.0	26.0	22.0
14	20.0	---	1.0	14.0	4.0	17.0	12.0	23.0	23.0	29.0	27.0	24.0
15	16.0	---	8.0	12.0	6.0	22.0	15.0	23.0	---	26.0	25.0	25.0
16	16.0	---	8.0	9.0	12.0	16.0	16.0	21.0	25.0	25.0	26.0	25.0
17	19.0	---	10.0	5.0	14.0	19.0	17.0	17.0	24.0	26.0	26.0	25.0
18	18.0	---	2.0	11.0	12.0	16.0	16.0	---	25.0	27.0	27.0	26.0
19	18.0	---	1.0	15.0	12.0	12.0	15.0	15.0	25.0	24.0	---	26.0
20	18.0	---	10.0	15.0	15.0	15.0	19.0	27.0	26.0	25.0	---	25.0
21	18.0	---	4.0	11.0	11.0	15.0	16.0	24.0	26.0	28.0	---	24.0
22	19.0	---	13.0	5.0	11.0	16.0	19.0	25.0	25.0	26.0	---	24.0
23	20.0	---	8.0	6.0	9.0	---	18.0	23.0	25.0	27.0	---	25.0
24	17.0	---	5.0	7.0	10.0	16.0	21.0	24.0	27.0	26.0	---	25.0
25	19.0	---	11.0	4.0	11.0	17.0	21.0	---	25.0	26.0	26.0	23.0
26	---	---	---	6.0	16.0	16.0	22.0	22.0	25.0	28.0	24.0	24.0
27	17.0	---	4.0	11.0	17.0	---	19.0	23.0	25.0	25.0	23.0	24.0
28	18.0	---	9.0	---	10.0	17.0	16.0	18.0	26.0	26.0	23.0	24.0
29	15.0	---	8.0	9.0	---	18.0	18.0	22.0	28.0	25.0	22.0	24.0
30	13.0	---	11.0	8.0	---	20.0	19.0	19.0	25.0	26.0	23.0	24.0
31	18.0	---	5.0	10.0	---	19.0	---	---	---	26.0	22.0	---
MEAN	17.0	11.0	6.5	9.0	10.0	16.5	17.5	22.0	24.5	25.5	25.0	23.5

08080950 DUCK CREEK NEAR GIRARD, TX

LOCATION.--Lat 33°21'22", long 100°42'17", Kent County, Hydrologic Unit 12050007, near right bank at downstream side of bridge on Farm Road 643, 2.5 mi west of Girard, and 10.7 mi upstream from mouth.

DRAINAGE AREA.--431 mi², of which 152 mi² probably is noncontributing.

PERIOD OF RECORD.--September 1964 to current year.

REVISED RECORDS.--WDR TX-72-1: 1971. WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,006.08 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 25-28, Nov. 10-24, Apr. 27-30, May 4-9, 16-25, 29, 30, July 16-19. Records good except for estimated daily discharges which are fair. There are several small diversions upstream from gage. Flow is affected at times by discharge from flood-detention pools of 12 floodwater-retarding structures with a combined detention capacity of 24,710 acre-ft. These structures control runoff from 108 mi². Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--22 years, 6.65 ft³/s (4,820 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,000 ft³/s June 4, 1974 (gage height, 15.22 ft); no flow at times in 1966, 1969, 1971, 1974, and 1980-84.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1902 occurred in March or April 1918 (stage and discharge unknown); the second highest stage, 19.8 ft in September 1955, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,190 ft³/s Sept. 4 at 2300 hours (gage height, 14.09 ft), minimum daily, 0.09 ft³/s, Oct. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	1.4	1.1	.96	1.4	.75	.72	.10	3.7	2.6	.12	5.5
2	.10	1.2	.87	.94	1.4	.79	.98	.10	1.2	123	.14	5.2
3	.10	1.3	.89	.87	1.5	.81	.84	.10	1.1	20	.18	7.8
4	.18	1.3	.87	.83	1.4	.87	.56	.10	.99	5.4	.19	1040
5	.21	1.2	.85	.79	1.8	1.0	.57	.10	.89	9.5	.14	1010
6	.24	.91	.89	.89	1.7	1.1	.85	.10	.80	4.1	.14	222
7	.20	.74	.94	.87	1.5	1.2	.79	.10	.80	2.3	.14	141
8	.15	1.5	.85	.80	1.4	1.2	.63	.10	.63	1.6	.19	95
9	.24	1.3	.91	.84	1.4	1.4	.47	.10	.55	1.0	.21	68
10	.49	1.2	.89	.89	1.4	1.3	.54	115	.50	.66	.21	61
11	.26	1.2	.90	.89	1.4	1.5	.65	57	.54	.41	.22	40
12	.14	1.2	.98	.93	1.4	1.5	.62	19	.37	.27	.21	29
13	.09	1.2	1.1	.89	1.4	1.6	.59	5.5	.26	.16	.18	22
14	24	1.2	1.0	.99	1.3	1.6	.37	1.6	.27	.14	.15	19
15	2.7	1.1	.98	1.2	1.4	1.8	.35	.39	.23	.13	78	15
16	.10	1.1	.97	1.2	1.4	1.7	.37	.10	.22	.10	81	11
17	46	1.1	.90	1.2	1.4	1.6	.39	.10	.25	.10	37	9.6
18	288	1.1	.90	1.2	1.4	1.3	.33	.10	.33	.10	22	8.9
19	68	1.1	.92	1.2	1.3	1.1	.42	.10	.41	.10	12	17
20	14	1.1	.90	1.2	1.1	.94	.58	.10	.43	.16	6.3	23
21	3.1	1.1	.92	1.3	.86	.99	.50	.10	2.1	.17	3.0	14
22	1.3	1.0	1.0	1.2	.84	1.1	.39	.10	.60	.18	1.7	9.8
23	.51	1.0	.98	1.2	.94	1.1	.36	.10	27	.16	.90	7.9
24	.14	1.0	.92	1.3	.94	1.2	.31	.10	97	.13	.61	6.7
25	.10	.90	.82	1.3	.97	1.1	.19	.10	49	.14	2.6	5.4
26	.10	1.0	.85	1.2	.99	1.0	.15	.60	39	.12	25	4.6
27	.10	.98	.86	1.2	.83	1.1	.10	3.5	34	.12	66	4.3
28	.10	.96	.89	1.3	.68	1.0	.10	.81	20	.11	14	4.2
29	.27	1.0	.89	1.3	---	1.0	.10	.10	9.6	.10	4.5	4.2
30	1.3	1.1	.99	1.2	---	1.0	.10	.10	4.5	.10	3.1	136
31	1.1	---	.96	1.3	---	.91	---	.12	---	.11	4.5	---
TOTAL	453.42	33.49	28.69	33.38	35.45	36.56	13.92	205.62	297.27	173.27	364.63	3047.1
MEAN	14.6	1.12	.93	1.08	1.27	1.18	.46	6.63	9.91	5.59	11.8	102
MAX	288	1.5	1.1	1.3	1.8	1.8	.98	115	97	123	81	1040
MIN	.09	.74	.82	.79	.68	.75	.10	.10	.22	.10	.12	4.2
AC-FT	899	66	57	66	70	73	28	408	590	344	723	6040

CAL YR 1985 TOTAL 1093.63 MEAN 3.00 MAX 288 MIN .01 AC-FT 2170
WTR YR 1986 TOTAL 4722.80 MEAN 12.9 MAX 1040 MIN .09 AC-FT 9370

08081000 SALT FORK BRAZOS RIVER NEAR PEACOCK, TX

LOCATION.--Lat 33°12'43", long 100°25'53", Stonewall County, Hydrologic Unit 12050007, on right bank at downstream side of bridge on U.S. Highway 380, 2.9 mi northwest of Peacock, 6.2 mi upstream from Croton Creek, 13.0 mi northwest of Aspermont, and at mile 54.3 measured from confluence with Double Mountain Fork Brazos River which is at mile 923.2 on the Brazos River.

DRAINAGE AREA.--4,619 mi², of which 2,634 mi² probably is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1949 to September 1951, September 1964 to September 1986 (discontinued).

REVISED RECORD.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,724.32 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 19, 1964, nonrecording gage at site 2.9 mi upstream at datum 19.39 ft higher.

REMARKS.--No estimated daily discharges. Records fair. Some regulation by White River Reservoir (capacity, 44,900 acre-ft), 79 mi upstream. Several small diversions above station. For statement regarding regulation by Soil Conservation Service floodwater retarding structures, see station 08080950.

AVERAGE DISCHARGE.--23 years (water years 1951, 1965-86), 40.0 ft³/s (28,980 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,000 ft³/s Aug. 13, 1972 (gage height, 13.75 ft); no flow at times most years.
Maximum stage since at least 1939, that of Aug. 13, 1972.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 18	2100	5,080	8.90	Aug. 16	1130	5,700	9.20
May 8	0100	5,660	a9.18	Sept. 5	1630	*6,620	*9.62

a From floodmark.

Minimum discharge, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	50	12	7.3	5.5	4.3	2.1	5.5	2.7	22	.00	45
2	.64	46	11	7.0	5.9	4.3	8.8	4.9	3.5	48	.00	25
3	.44	40	12	7.0	6.8	4.0	6.6	4.6	68	403	.00	37
4	.26	34	11	6.5	6.0	4.0	3.7	4.3	184	583	.00	392
5	.06	30	11	6.6	10	3.9	2.7	4.3	194	162	.00	5460
6	.03	26	10	6.9	12	3.6	4.1	3.7	81	73	.00	2030
7	.02	26	10	5.8	8.7	3.7	3.8	125	351	48	.00	822
8	.00	26	10	6.1	7.4	3.8	3.2	1140	578	39	.00	507
9	.00	24	10	6.4	7.0	3.8	3.2	130	206	34	.00	369
10	367	20	9.8	6.2	7.0	3.4	3.0	93	108	30	.00	293
11	1540	19	9.5	6.3	6.6	3.7	3.0	30	73	21	.00	232
12	749	20	9.5	6.0	6.6	4.3	2.7	27	46	11	.00	201
13	158	20	10	5.9	7.4	3.9	2.5	14	33	6.6	.00	183
14	225	19	11	6.2	6.2	4.2	2.1	8.7	22	5.2	.00	148
15	311	19	9.8	6.1	6.2	6.3	1.9	6.2	16	3.2	53	121
16	219	18	9.7	6.0	5.9	4.9	1.8	4.3	23	2.5	3250	99
17	201	18	9.5	5.8	5.2	4.0	1.6	3.7	41	2.1	787	81
18	3280	18	8.9	5.7	4.9	3.2	1.6	3.2	217	1.8	327	69
19	1850	16	9.1	5.8	4.6	2.7	56	3.0	290	1.5	158	55
20	514	15	8.8	5.8	4.3	2.7	46	2.7	211	1.3	71	48
21	306	15	9.0	5.3	4.0	2.9	21	1.8	169	.80	39	43
22	260	14	9.0	5.0	4.3	2.9	11	1.6	113	.50	21	37
23	211	14	8.8	5.5	4.6	2.5	8.7	1.2	67	.39	11	32
24	176	15	8.2	5.6	4.3	2.3	9.2	5.1	65	.35	6.3	27
25	142	15	7.8	5.0	4.6	2.4	12	3.2	64	.23	15	22
26	118	14	8.4	5.0	4.6	2.5	17	213	70	.10	15	23
27	98	13	7.7	5.3	4.3	2.5	25	127	112	.06	4.6	17
28	81	13	7.9	5.9	4.3	2.5	10	38	55	.02	4.5	14
29	79	15	8.2	5.1	---	2.3	6.2	18	60	.00	8.3	19
30	72	16	8.5	5.1	---	2.3	6.2	20	28	.00	6.1	13
31	62	---	7.2	5.5	---	2.1	---	6.6	---	.00	41	---
TOTAL	11021.55	648	293.3	183.7	169.2	105.9	286.7	2053.6	3551.2	1500.65	4817.80	11464
MEAN	356	21.6	9.46	5.93	6.04	3.42	9.56	66.2	118	48.4	155	382
MAX	3280	50	12	7.3	12	6.3	56	1140	578	583	3250	5460
MIN	.00	13	7.2	5.0	4.0	2.1	1.6	1.2	2.7	.00	.00	13
AC-FT	21860	1290	582	364	336	210	569	4070	7040	2980	9560	22740

CAL YR 1985 TOTAL 23775.33 MEAN 65.1 MAX 3280 MIN .00 AC-FT 47160
WTR YR 1986 TOTAL 36095.60 MEAN 98.9 MAX 5460 MIN .00 AC-FT 71600

08081000 SALT FORK BRAZOS RIVER NEAR PEACOCK, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: December 1949 to September 1951, October 1964 to June 1986.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1949 to September 1951, October 1964 to September 1986.
WATER TEMPERATURES: December 1949 to September 1951, October 1964 to September 1986.

INSTRUMENTATION.--Specific conductance was recorded continuously from January 1969 to September 1983.

REMARKS.--Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the Geological Survey District office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 61,100 microsiemens July 31, 1966; minimum daily, 900 microsiemens Aug. 31, 1966
WATER TEMPERATURES (1964-85): Maximum daily, 39.0°C June 25, 1968, July 30, 1978, minimum daily, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 55,100 microsiemens May 22; minimum daily, 1,220 microsiemens Oct. 18.
WATER TEMPERATURES: Maximum daily, 34.0°C May 15, July 18; minimum daily, 1.0°C Dec. 11, Jan. 3, 29.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
NOV 26...	1445	14	38300	19.0	2600	2500	660	240	8900
JAN 14...	1630	6.2	42600	14.0	3000	2900	800	250	10000
MAR 05...	1300	4.0	46500	19.0	3400	3200	800	330	10000
APR 24...	1510	9.6	38700	28.5	2700	2600	700	230	8500
JUN 12...	1245	47	7650	27.5	510	380	140	[illegible]	[illegible]

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
NOV 26...	78	24	148	2200	15000	0.6	10	27000
JAN 14...	82	23	166	2200	17000	0.5	9.4	30000
MAR 05...	77	26	131	2700	16000	0.6	7.4	30000
APR 24...	74	22	112	2600	15000	0.5	7.1	27000
JUN 12...	30	7.7	130	460	2300	0.6	9.7	4500

MONTHLY AND ANNUAL MEANS AND LOADS FOR OCTOBER 1985 TO SEPTEMBER 1986

MONTH	YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED SOLIDS (MG/L)	DISSOLVED SOLIDS (TONS)	DISSOLVED CHLORIDE (MG/L)	DISSOLVED CHLORIDE (TONS)	DISSOLVED SULFATE (MG/L)	DISSOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT.	1985	11021.55	3540	2170	64700	1100	31900	280	8260	340
NOV.	1985	648	29600	19400	34000	10000	17600	2000	3490	*
DEC.	1985	293.3	40900	27700	22000	14600	11600	2600	2020	*
JAN.	1986	183.7	43300	29500	14600	15600	7750	2700	1320	*
FEB.	1986	169.2	42900	29200	13400	15500	7060	2600	1200	*
MAR.	1986	105.9	47700	32900	9420	17600	5020	2800	805	*
APR.	1986	286.7	28000	18600	14400	9700	7520	1800	1420	*
MAY	1986	2053.6	14200	9110	50500	4600	25700	1000	5560	*
JUNE	1986	3551.2	4850	2950	28300	1400	13900	390	3700	480
JULY	1986	1500.65	7630	4750	19200	2400	9580	580	2350	720
AUG.	1986	4817.80	4110	2510	32600	1200	16000	320	4230	400
SEPT	1986	11464	3430	2100	64900	1000	31900	270	8400	340
TOTAL		36095.60	**	**	368000	**	186000	**	42800	**
WTD.AVG.		99	5970	3780	**	1900	**	440	**	540

08081000 SALT FORK BRAZOS RIVER NEAR PEACOCK, TX--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
EQUIVALENT MEAN

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37800	17300	38800	42500	43000	46500	51300	47300	30100	12900	---	7790
2	36000	21500	40200	42600	43500	46200	40000	51500	30600	11000	---	16400
3	37200	21700	39800	42700	43000	46100	40700	49700	11000	4250	---	13800
4	38500	23500	42100	43300	43500	46300	50400	50200	4060	3200	---	10400
5	38600	25300	39500	43100	40300	46900	49900	50300	3230	11900	---	1450
6	38900	25400	39700	43300	39100	47700	50000	50100	7200	12200	---	1800
7	39300	26400	40800	43700	42600	47800	49000	35000	5000	13500	---	2850
8	---	28600	40900	43400	42400	47000	50600	8200	2000	14400	---	3730
9	---	29500	40700	43000	43000	47500	50000	12600	1500	17400	---	3990
10	22600	30300	41200	43400	43300	47400	49400	26500	3000	21600	---	4170
11	3090	31000	41300	42800	43700	48400	49300	47300	4400	24900	---	5320
12	2260	31900	41700	42600	44000	49000	49700	48000	7470	28300	---	5330
13	2590	32000	40900	42500	41300	47300	49900	46200	9670	31500	---	8120
14	2260	32900	40300	42600	40800	47900	51500	45700	13100	34000	---	8190
15	3170	33600	40200	42500	41900	47000	50500	45000	19600	35800	34200	9260
16	3140	32400	40300	42700	42400	46800	50300	46300	15500	36000	3350	10800
17	4240	33700	40700	42900	43100	46700	50800	47300	10200	37700	3200	11800
18	1220	34600	40900	43600	43800	47500	51400	47400	8670	38500	3040	13100
19	1670	35500	40700	43400	44100	47800	18000	50600	4270	39500	4360	14200
20	2140	35900	41200	43300	44600	48100	10100	52500	3120	42000	7670	15200
21	3550	36400	41000	44300	45300	47600	11200	54500	5110	41000	10900	15300
22	4580	36600	41300	44500	44900	49300	23400	55100	5140	41800	13700	16400
23	5940	37200	41700	44100	44500	48200	32600	54300	5450	42600	18800	18700
24	7820	37000	42200	44500	44400	48100	39800	53500	7330	43000	18800	20300
25	7970	37400	42400	44200	44500	49500	37700	51500	7360	42200	17100	21300
26	9500	37700	41800	44400	44600	49200	33800	12000	4650	38900	16500	21300
27	11100	38700	42100	43700	45600	49700	30100	7910	3260	40300	21100	24400
28	12100	38500	41900	43600	45500	50400	33300	5480	7610	39200	22000	25500
29	14200	38300	41600	43800	---	48800	41300	8950	7710	---	14800	25300
30	15600	38700	41700	43500	---	49000	44100	13500	11600	---	13100	25800
31	17800	---	42300	43200	---	48300	---	20900	---	---	9800	---
MEAN	14600	32000	41000	43300	43300	47900	41300	38600	8630	28600	13700	12700

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.0	13.0	4.0	13.0	15.0	23.0	20.0	19.0	22.0	25.0	--	27.0
2	13.0	14.0	3.0	5.0	14.0	15.0	22.0	21.0	21.0	---	--	22.0
3	25.0	14.0	---	1.0	---	16.0	22.0	19.0	24.0	24.0	---	24.0
4	22.0	12.0	7.0	4.0	20.0	11.0	20.0	20.0	22.0	26.0	---	22.0
5	22.0	11.5	8.0	13.0	---	20.0	20.0	32.0	24.0	29.0	---	22.0
6	22.0	12.0	---	12.0	14.0	18.0	23.0	25.0	26.0	31.0	---	24.0
7	24.0	10.0	7.0	---	7.0	17.0	31.0	---	24.0	26.0	---	19.0
8	---	11.0	5.0	8.0	2.0	22.0	21.0	17.0	29.0	25.0	---	20.0
9	---	14.0	8.0	10.0	2.0	13.0	---	24.0	25.0	32.0	---	24.0
10	16.0	10.0	2.0	4.0	2.0	12.0	15.0	21.0	26.0	31.0	---	26.0
11	16.0	7.0	1.0	2.0	2.0	23.0	15.0	20.0	24.0	30.0	---	27.0
12	20.0	12.0	---	3.0	3.0	17.0	---	22.0	25.0	32.0	---	---
13	---	14.0	---	2.0	13.0	20.0	---	22.0	24.0	28.0	---	25.0
14	19.0	15.0	7.0	---	9.0	20.0	18.0	23.0	24.0	29.0	---	27.0
15	18.0	16.0	7.0	11.0	13.0	17.0	17.0	34.0	30.0	29.0	31.0	29.0
16	18.0	15.0	6.0	15.0	14.0	16.0	20.0	25.0	31.0	25.0	---	29.0
17	19.0	16.0	4.0	14.0	21.0	13.0	17.0	18.0	30.0	28.0	31.0	29.0
18	18.0	15.0	6.0	9.0	14.0	11.0	18.0	20.0	27.0	34.0	29.0	24.0
19	23.0	12.0	11.0	16.0	14.0	10.0	11.0	26.0	27.0	28.0	30.0	25.0
20	18.0	6.0	6.0	15.0	14.0	15.0	9.5	24.0	30.0	30.0	32.0	24.0
21	20.0	7.0	5.0	14.0	6.0	11.0	18.0	18.0	30.0	27.0	29.0	23.0
22	24.0	11.0	4.0	9.0	7.0	20.0	---	25.0	31.0	---	32.0	23.0
23	24.0	12.0	4.0	15.0	9.0	14.0	16.0	27.0	---	---	30.0	28.0
24	23.0	11.0	2.0	12.0	9.0	17.0	31.0	28.0	28.0	31.0	30.0	27.0
25	19.0	11.0	6.0	7.0	20.0	21.0	19.0	26.0	31.0	30.0	23.0	28.0
26	19.0	12.0	7.0	3.0	16.0	16.0	21.0	20.0	31.0	31.0	21.0	24.0
27	23.0	10.0	6.0	5.0	16.0	25.0	---	20.0	28.0	30.0	28.0	24.0
28	---	9.0	6.0	4.0	14.0	23.0	19.0	23.0	29.0	31.0	23.0	24.0
29	19.0	6.0	4.0	1.0	---	17.0	23.0	21.0	29.0	---	23.0	26.0
30	19.0	7.0	4.0	5.0	---	16.0	20.0	19.0	31.0	---	25.0	26.0
31	18.0	---	7.0	18.0	---	22.0	---	20.0	---	---	26.0	---
MEAN	19.5	11.5	5.5	8.5	11.0	17.0	19.5	22.5	27.0	29.0	27.5	25.0

08081200 CROTON CREEK NEAR JAYTON, TX

LOCATION.--Lat 33°17'18", long 100°25'52", Stonewall County, Hydrologic Unit 12050007, on left bank 220 ft downstream from county road, 0.9 mi upstream from mouth, and 8.5 mi northeast of Jayton.

DRAINAGE AREA.--290 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1959 to September 1986 (discontinued).

REVISED RECORDS.--WRD TX-76-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,694.45 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 11, 1976, at site 680 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Oct. 17-22, Nov. 20-24, Feb. 9 to Mar. 4, July 5-28, and Sept. 4-30. Records fair except those for estimated days, which are poor. No diversion above station.

AVERAGE DISCHARGE.--27 years, 13.9 ft^3/s (0.65 in/yr), 10,070 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,600 ft^3/s Oct. 18, 1960 (gage height, 12.40 ft), from rating curve extended above 3,100 ft^3/s; maximum gage height, 12.52 ft May 20, 1977, from floodmark; no flow for many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1935, 13.5 ft in 1941 or 1942, present datum, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 15	0230	2,700	9.20	July 2	1630	*3,070	*9.55
Oct. 18	0600	2,580	9.08	Sept. 4	1345	2,670	9.18

Minimum discharge, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.50	5.9	1.3	.36	.19	.03	.00	.25	7.2	12	.00	62
2	.30	6.6	1.3	.36	.24	.02	.02	.16	76	727	.00	27
3	.05	4.8	1.1	.36	.30	.02	.00	.02	43	238	.00	13
4	.00	3.9	1.1	.36	.30	.02	.00	.00	12	87	.00	399
5	.00	3.2	1.0	.30	1.5	.02	.00	.00	196	43	.00	150
6	.00	2.6	.89	.24	3.2	.01	.52	.00	97	28	.00	100
7	.00	2.3	.89	.19	1.0	.01	.09	.55	33	12	.00	50
8	.00	2.0	.78	.14	.89	.00	.01	5.9	12	5.8	.00	35
9	.00	1.6	.78	.19	.78	.00	.00	.09	6.8	2.0	.00	20
10	66	1.1	.68	.19	.59	.00	.00	258	11	1.0	.00	10
11	96	1.1	.68	.19	.43	.00	.00	117	5.7	.59	.00	7.0
12	52	1.0	.68	.19	2.8	.02	.00	32	2.7	.50	.00	4.0
13	10	1.1	.89	.19	1.6	.01	.00	14	1.6	1.4	.00	2.5
14	137	1.4	1.1	.19	.43	.01	.00	5.9	1.1	.50	.02	1.5
15	332	2.0	1.0	.30	.30	.02	.00	3.9	.88	.24	40	.80
16	55	1.8	.78	.30	.24	.01	.00	2.3	.64	.30	39	.60
17	82	2.4	.68	.30	.19	.01	.00	1.2	15	.19	16	.50
18	1160	2.2	.68	.30	.14	.01	.00	.93	15	.10	3.4	.40
19	205	1.5	.89	.24	.10	.01	21	.65	2.6	.10	1.4	.35
20	115	1.4	.68	.24	.07	.01	3.9	.40	.71	.03	.55	.30
21	81	1.3	.68	.19	.05	.01	.46	.22	11	.00	.36	.27
22	58	1.1	.68	.14	.05	.01	.12	.14	71	.00	.28	.25
23	43	1.0	.59	.19	.03	.00	.14	.10	141	.00	4.3	.23
24	32	1.1	.50	.19	.03	.00	3.5	.13	66	.00	.15	.22
25	26	1.3	.43	.14	.03	.01	.27	59	35	.00	23	.21
26	21	1.3	.36	.14	.03	.01	4.3	3.8	19	.00	13	.20
27	17	1.1	.30	.14	.03	.00	2.1	54	10	.00	84	.19
28	13	1.1	.36	.19	.03	.00	.34	24	5.6	.00	92	.18
29	10	1.3	.43	.14	---	.00	.12	28	2.9	.00	10	.17
30	7.7	1.4	.43	.14	---	.00	.18	26	1.8	.00	4.6	333
31	6.5	---	.36	.19	---	.00	---	9.9	---	.00	2.2	---
TOTAL	2626.05	61.9	23.00	6.92	15.57	.28	37.07	648.54	903.23	1159.75	334.26	1218.87
MEAN	84.7	2.06	.74	.22	.56	.01	1.24	20.9	30.1	37.4	10.8	40.6
MAX	1160	6.6	1.3	.36	3.2	.03	21	258	196	727	92	399
MIN	.00	1.0	.30	.14	.03	.00	.00	.00	.64	.00	.00	.17
CFSM	.29	.01	.00	.00	.00	.00	.00	.07	.10	.13	.04	.14
IN.	.34	.01	.00	.00	.00	.00	.00	.08	.12	.15	.04	.16
AC-FT	5210	123	46	14	31	.6	74	1290	1790	2300	663	2420

CAL YR 1985 TOTAL 4075.25 MEAN 11.2 MAX 1160 MIN .00 CFSM .04 IN. .52 AC-FT 8080
WTR YR 1986 TOTAL 7035.44 MEAN 19.3 MAX 1160 MIN .00 CFSM .07 IN. .90 AC-FT 13950

08081200 CROTON CREEK NEAR JAYTON, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: September 1958 to June 1986.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1960 to September 1986.
WATER TEMPERATURES: October 1960 to September 1973.

INSTRUMENTATION.-- Specific conductance was recorded continuously from May 1968 to September 1986.

REMARKS.--Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the Geological Survey District office upon request. Minimum estimated specific conductance was based on historical records and regression analysis between discharge and specific conductance.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 60,700 microsiemens Feb. 15, 1967; minimum daily, 300 microsiemens Oct. 18, 1986

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 54,500 microsiemens Feb. 6; minimum daily, 300 microsiemens Oct. 18.
WATER TEMPERATURES: Maximum daily, 40.5°C June 28.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
NOV									
25...	1315	1.3	33000	20.0	4100	3900	1200	260	7000
JAN									
15...	1455	0.31	38700	16.0	4500	4300	1300	300	8600
MAR									
05...	1515	0.02	45700	19.5	4700	4600	1300	360	11000
APR									
22...	1615	0.09	39800	28.0	4200	4100	1200	300	7600
JUN									
12...	1445	2.9	18100	35.5	3100	3000	1000	140	3600

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
NOV								
25...	50	19	130	3600	11000	0.2	5.7	23000
JAN								
15...	58	20	146	3900	14000	0.2	6.2	28000
MAR								
05...	72	26	151	4000	18000	0.2	8.1	35000
APR								
22...	53	24	86	3300	14000	0.2	4.2	26000
JUN								
12...	29	15	82	3000	5400	0.2	9.6	13000

MONTHLY AND ANNUAL MEANS AND LOADS FOR OCTOBER 1985 TO SEPTEMBER 1986

MONTH YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-MHOS)	DIS-SOLVED SOLIDS (MG/L)	DIS-SOLVED SOLIDS (TONS)	DIS-SOLVED CHLORIDE (MG/L)	DIS-SOLVED CHLORIDE (TONS)	DIS-SOLVED SULFATE (MG/L)	DIS-SOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT. 1985	2626.05	3520	2440	17300	970	6910	590	4160	650
NOV. 1985	61.9	25200	17600	2930	8000	1340	3200	527	*
DEC. 1985	23.00	37900	26400	1640	13100	813	3700	229	*
JAN. 1986	6.92	39400	27400	513	13700	257	3700	69	*
FEB. 1986	15.57	44100	30800	1290	15900	669	3600	153	*
MAR. 1986	0.78	41400	28800	22	14600	11	3700	2.8	*
APR. 1986	37.07	26100	18200	1820	8300	835	3200	324	*
MAY 1986	646.54	11600	8040	14100	3400	5900	1800	3090	*
JUNE 1986	903.23	8850	6150	15000	2500	6180	1400	3390	1500
JULY 1986	1150.75	2000	1390	4340	540	1680	350	1090	390
AUG. 1986	334.26	22500	15600	14100	7100	6380	2900	2600	*
SEPT 1986	1218.87	15700	10900	35900	4700	15500	2200	7370	*
TOTAL	7035.44	**	**	109000	**	46500	**	23000	**
WTD.AVG.	10	6250	5740	**	2400	**	1200	**	1400

08081200 CROTON CREEK NEAR JAYTON, TX--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	19500	21700	19600	20900	36700	35000	35700	38900	37100	38500
2	---	---	19900	21900	19500	21200	39300	36500	37500	39600	37400	38900
3	---	---	20600	21300	18900	21000	37800	37000	37300	40000	38000	39300
4	---	---	---	21500	19100	21100	37600	35700	37100	39900	38200	39400
5	---	---	---	22000	21500	21800	38000	34700	37400	40400	38500	39700
6	---	---	---	22900	21900	22300	38400	37500	38000	40300	37900	39500
7	---	---	---	23700	22600	23200	38300	37200	38000	41300	40200	40800
8	---	---	---	24300	23600	24000	38500	37000	37800	42700	40000	41500
9	---	---	---	25000	22500	24200	37800	33900	36900	43300	39900	41600
10	41700	5200	17300	25800	23000	25200	37800	37400	37500	41700	38100	40200
11	9600	2500	3500	26300	25900	26100	37900	37500	37700	41300	37700	39800
12	9500	4400	5920	26400	26100	26300	38200	37800	38000	40900	38300	39600
13	6700	4500	5080	26600	26200	26500	39900	36500	38500	40900	38900	40000
14	10800	1100	5980	27200	26500	26900	40700	38000	39700	40800	37700	39700
15	1100	700	767	27800	26700	27300	41600	34300	39600	40400	38300	39500
16	800	600	729	28200	27300	27800	40000	34000	37800	38900	37700	38400
17	3100	600	891	28100	27200	27700	38300	33900	37200	38900	37100	38300
18	4000	300	2180	27900	27400	27700	38400	36900	37500	39400	37500	38500
19	1500	600	1000	29000	27800	28300	39300	33900	38000	39400	37100	38600
20	3800	1500	2820	29100	27900	28700	39200	34400	38300	39400	37100	38800
21	6000	3300	4580	29000	28200	28600	39100	34400	37900	39700	37500	38900
22	9900	4200	8000	29200	28600	28900	38400	34500	37800	40200	37600	39300
23	10900	9100	9820	29200	28200	28800	38700	34200	37800	40600	37600	39400
24	12300	9300	11100	29100	28500	28900	38800	37400	38400	39900	37700	38900
25	13700	12400	13100	33800	28200	31000	39400	37500	38700	40400	37700	39400
26	14500	13600	13900	34100	33600	33700	39300	36800	38600	41100	37400	39500
27	15600	13000	14800	34800	34200	34500	39300	37200	38700	41400	38500	39800
28	16900	15600	16200	35300	34800	35000	39400	37100	38700	40500	38100	39500
29	18300	17000	17700	35300	34400	34700	39400	36500	38300	40600	37900	39500
30	19000	18200	18600	34900	34000	34400	39300	34300	38100	41300	37600	39700
31	19500	19000	19300	---	---	---	39400	37000	38500	40300	38000	39100
MONTH	41700	300	10100	35300	18900	27200	41600	33900	38000	43300	37100	39500

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	39500	38000	38800	44200	39700	4210	---	---	---	39200	35500	37100
2	39000	38100	38500	43100	37400	4120	44300	40200	42800	41400	37300	39200
3	39000	37500	38300	42700	37400	4110	---	---	---	42500	40000	41200
4	39200	37000	38400	42900	38700	4160	---	---	---	---	---	---
5	38400	31100	33800	43400	38500	4160	---	---	---	---	---	---
6	54500	37900	47400	43600	39700	4200	43000	29400	33700	---	---	---
7	50000	45500	47300	43000	39900	4170	31100	29300	30000	43400	10900	39500
8	48400	45300	46100	---	---	--	30600	29700	30200	19800	5900	10600
9	48900	47200	48200	---	---	--	---	---	---	22400	15200	19400
10	47300	44700	46400	---	---	--	---	---	---	30600	3700	13000
11	48100	44400	46000	---	---	--	---	---	---	4000	3000	3350
12	45100	42300	44600	42600	38600	4090	---	---	---	6800	4100	5200
13	45400	42200	44100	41200	39600	4050	---	---	---	11900	7100	8640
14	44100	42900	43300	41600	39000	4050	---	---	---	21900	14100	18700
15	43900	41500	43300	39200	38000	3830	---	---	---	19300	18100	18800
16	43500	41500	43200	44600	37600	4090	---	---	---	20900	18800	19600
17	44600	42100	43500	44000	40600	4260	---	---	---	22100	21100	21700
18	45100	41900	43800	43700	41500	4260	---	---	---	24900	22000	23200
19	45800	42700	44400	44700	40800	4290	45200	16100	24700	27400	14900	23300
20	45000	41600	44000	43800	40300	4260	28300	17200	23700	---	---	24000
21	45200	43100	44300	43300	39900	4190	34500	28600	32000	---	---	24400
22	45000	40900	43100	42600	39800	4120	39900	34500	36800	---	---	24900
23	44100	41100	42700	---	---	--	41000	20800	37200	---	---	25100
24	44200	40700	42800	---	---	--	35400	14300	29500	---	---	25000
25	43700	39900	42100	42100	38900	4040	34100	30000	31900	22300	13000	14900
26	43400	37600	42000	43800	40700	4280	34500	20000	30200	20200	14500	17700
27	42700	40300	41700	---	---	--	26500	20800	23500	30300	4400	17100
28	43400	40500	42300	---	---	--	32500	24600	29200	10700	4900	8020
29	---	---	---	---	---	--	39200	30600	35200	15600	4200	11300
30	---	---	---	---	---	--	39500	33400	35500	20400	11000	14000
31	---	---	---	---	---	--	---	---	---	38500	20400	32000
MONTH	54500	31100	43000	44700	37400	4190	45200	14300	31600	43400	3000	20800

08081200 CROTON CREEK NEAR JAYTON, TX--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	34000	21300	29500			19200	---	---	---	26700	14400	19900
2	27800	4200	15900			2010	---	---	---	21800	13000	14600
3	6100	4300	5380			945	---	---	---	32300	14000	16300
4	10900	4400	8450			749	---	---	---	23600	7800	12400
5	16000	3400	7610			1020	---	---	---	8200	7600	7810
6	3700	1000	2750			3670	---	---	---	10200	8000	8830
7	6300	3800	5100			5320	---	---	---	14300	8900	11700
8	9300	4500	7440			7460	---	---	---	15200	13500	14200
9	12300	9400	10500			9290	---	---	---	18100	15300	16800
10	14800	10500	13100			10300	---	---	---	20400	18100	19300
11	18000	14400	16100			11700	---	---	---	22400	19300	21100
12	18300	15000	17600			12600	---	---	---	23700	22000	22700
13	20700	17800	19200			11300	---	---	---	25500	23600	24600
14	24000	19000	22000			14400	---	---	37000	27200	25300	26200
15	27600	23100	25300			15800	41600	23300	30400	29400	26800	28100
16	30100	26200	27400			15200	40200	26200	32700	30200	28800	29400
17	27000	15200	20900			16100	25900	23300	24100	31600	29500	30300
18	22700	2300	16700			17000	27800	23500	25900	31500	29600	30600
19	18700	3200	12100			18200	32200	27300	29900	33600	30400	32100
20	26200	19000	22500			19600	35900	31200	33100	34700	32700	33600
21	29800	800	23400			---	36700	33700	35000	35900	33900	34800
22	28600	1000	12900			---	37100	33800	35400	36900	34800	35700
23	7800	2200	4700			---	36900	34400	36100	38100	35700	36800
24	---	---	6230			---	37400	36000	36600	39400	36200	37700
25	---	---	9760			---	37900	7800	22500	40300	36300	38700
26	---	---	12300			---	34300	26300	30000	39800	36300	38100
27	---	---	14800			---	40700	12300	21800	41200	36500	39600
28	---	---	17300			---	18400	12700	13800	41200	39700	40400
29	---	---	19900			---	17500	14300	16000	41600	40200	40800
30	---	---	22400			---	20000	17600	18900	40900	7400	24500
31	---	---	---			---	21900	19100	20800	---	---	---
MONTH	34000	800	15000			10600	41600	7800	27800	41600	7400	26300

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	21.0	11.0	16.0	15.0	11.5	12.5				---	---	---
2	21.0	15.5	18.0	19.0	8.0	13.0				---	---	---
3	24.0	16.5	20.0	19.5	8.0	13.0				---	---	---
4	---	---	---	20.5	8.5	13.5				---	---	---
5	---	---	---	19.0	9.0	14.0				---	---	---
6	---	---	---	20.5	10.5	14.0				---	---	---
7	---	---	---	19.5	7.5	12.5				---	---	---
8	---	---	---	22.0	8.0	14.0				---	---	---
9	---	---	---	23.0	14.0	17.0				---	---	---
10	23.0	14.0	17.5	15.0	9.5	11.5				---	---	---
11	18.5	15.0	16.5	10.0	7.5	9.0				---	---	---
12	26.0	15.5	20.0	13.5	9.0	11.0				---	---	---
13	29.5	19.5	23.0	17.0	12.0	14.0				---	---	---
14	22.0	17.0	18.0	15.5	9.5	13.0				---	---	---
15	21.5	15.0	17.5	16.0	6.5	10.5				15.5	8.5	11.5
16	23.0	13.5	18.0	14.5	5.5	10.0				15.5	6.0	9.5
17	19.5	16.5	18.0	18.0	7.5	12.5				18.0	3.0	9.0
18	19.5	17.0	18.0	21.0	12.5	16.0				15.5	3.5	9.0
19	22.5	17.0	19.5	---	---	---				17.5	3.5	9.5
20	21.5	15.5	18.5	---	---	---				17.5	4.0	10.0
21	22.5	17.0	19.0	---	---	---				17.0	6.5	10.5
22	25.5	17.5	20.5	---	---	---				14.5	4.5	8.0
23	25.0	17.5	20.5	---	---	---				15.5	2.0	8.0
24	24.5	14.5	19.0	---	---	---				16.5	6.0	10.5
25	21.5	17.5	19.0	---	---	---				12.5	3.5	7.5
26	24.0	17.5	20.0	---	---	---				14.0	1.0	6.5
27	25.5	16.0	20.0	---	---	---				13.5	1.0	6.5
28	23.0	17.5	19.5	---	---	---				17.0	2.5	9.0
29	22.0	14.0	17.0	---	---	---				16.0	4.0	9.0
30	21.0	12.0	15.5	---	---	---				17.5	3.5	9.5
31	21.0	10.0	15.0	---	---	---				21.0	8.0	13.5
MONTH	29.5	10.0	18.5	23.0	5.5	13.0				21.0	1.0	9.0

08081200 CROTON CREEK NEAR JAYTON, TX--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	22.0	11.5	16.0	22.0	8.0	14.0	---	---	---	27.0	17.5	22.0
2	18.0	13.0	15.0	21.0	10.0	14.5	25.0	15.0	18.0	26.0	17.5	22.0
3	21.0	11.5	15.5	19.0	11.5	14.5	---	---	---	27.0	19.5	23.0
4	21.0	6.5	13.0	21.0	10.0	14.5	---	---	---	---	---	---
5	12.5	8.0	10.0	19.0	10.5	14.0	---	---	---	---	---	---
6	15.0	6.0	10.0	20.5	6.5	13.0	30.5	17.0	23.0	---	---	---
7	8.0	3.5	6.5	18.5	9.0	13.0	30.5	18.5	23.5	29.0	20.5	24.5
8	7.0	1.5	3.5	---	---	---	22.5	16.0	19.5	33.0	19.5	24.5
9	3.0	.5	1.5	---	---	---	---	---	---	29.0	15.5	21.0
10	6.0	.5	2.0	---	---	---	---	---	---	24.5	18.5	21.0
11	5.0	.5	2.0	---	---	---	---	---	---	31.5	20.0	25.0
12	3.5	.5	1.5	21.0	9.0	14.0	---	---	---	29.0	20.0	23.5
13	15.0	.5	7.0	19.0	10.0	13.5	---	---	---	31.0	19.0	24.5
14	17.5	4.5	9.5	19.5	7.0	12.5	---	---	---	35.5	20.5	25.5
15	18.5	4.0	10.5	24.0	10.5	15.5	---	---	---	36.0	17.5	25.5
16	16.5	9.0	12.5	26.0	10.0	16.5	---	---	---	29.5	21.0	25.0
17	21.5	7.5	13.5	24.5	11.0	16.5	---	---	---	21.5	14.0	16.5
18	23.0	9.5	15.5	19.5	10.5	14.0	---	---	---	30.0	12.5	20.0
19	23.5	11.0	16.5	20.0	8.0	13.0	17.5	13.0	15.0	33.0	12.5	22.0
20	21.0	8.5	14.0	18.0	7.0	11.5	28.0	10.0	18.0	33.0	15.0	22.5
21	17.0	5.0	9.5	22.0	7.0	13.5	30.5	12.5	20.5	31.5	17.0	23.0
22	21.5	4.5	11.5	21.5	8.5	14.5	28.0	13.5	21.0	29.0	18.0	23.0
23	21.5	7.0	13.5	---	---	---	25.5	16.0	20.5	28.5	18.0	23.0
24	21.5	8.0	14.0	---	---	---	32.5	16.5	23.0	28.5	21.5	24.0
25	23.5	9.5	15.5	21.5	12.0	16.5	29.5	17.0	22.5	29.5	20.0	24.0
26	25.0	10.5	17.0	25.0	12.5	18.5	29.0	17.0	22.0	31.5	20.0	24.0
27	18.0	11.5	13.5	---	---	---	27.0	15.5	20.5	27.5	17.5	22.0
28	20.5	9.5	13.5	---	---	---	32.5	12.0	21.5	31.5	17.5	24.0
29	---	---	---	---	---	---	29.5	19.0	24.0	27.0	18.0	21.0
30	---	---	---	---	---	---	28.0	20.5	23.0	25.0	19.5	21.5
31	---	---	---	---	---	---	---	---	---	30.0	20.5	24.0
MONTH	25.0	.5	11.0	26.0	6.5	14.5	32.5	10.0	21.0	36.0	12.5	23.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	32.5	21.5	25.0	34.0	20.0	27.0	---	---	---	23.5	20.5	22.0
2	28.5	20.5	24.0	25.0	21.0	23.0	---	---	---	29.5	21.0	24.0
3	33.5	22.0	26.5	26.5	21.5	24.0	---	---	---	24.5	22.5	23.5
4	34.5	23.0	27.5	32.5	22.0	27.0	---	---	---	22.5	20.5	21.5
5	28.0	21.5	24.5	33.0	22.0	27.5	---	---	---	24.5	20.5	22.0
6	34.0	23.5	28.0	29.5	24.0	27.0	---	---	---	28.0	22.0	24.5
7	35.0	23.5	28.5	30.0	24.5	27.0	---	---	---	24.0	18.0	20.5
8	35.0	23.5	29.0	29.5	25.5	27.0	---	---	---	23.0	17.5	19.5
9	37.0	23.5	29.5	28.5	24.5	27.0	---	---	---	27.5	18.5	22.5
10	37.0	24.5	29.5	28.0	24.5	26.5	---	---	---	30.5	21.5	25.5
11	36.5	20.5	27.5	28.5	24.5	26.5	---	---	---	30.5	21.0	25.0
12	36.0	21.0	27.5	28.0	25.0	27.0	---	---	---	31.5	18.0	24.0
13	35.0	20.5	26.5	27.5	25.0	26.5	---	---	---	33.0	19.0	25.0
14	34.5	22.0	27.0	27.5	24.5	26.5	28.5	24.0	25.5	32.5	22.5	26.5
15	34.5	21.0	26.5	27.5	24.5	26.5	33.0	24.5	27.5	32.0	22.5	26.5
16	34.5	22.0	26.0	27.5	24.5	26.5	37.0	25.5	30.5	32.0	22.0	25.5
17	34.5	20.5	26.0	28.0	24.5	26.5	39.0	26.0	31.0	33.5	21.5	26.5
18	32.5	21.5	25.0	28.0	24.5	26.5	39.0	25.5	31.5	32.0	21.5	26.5
19	34.0	21.0	26.5	28.5	24.5	26.5	39.0	25.5	31.0	31.5	21.5	26.0
20	32.5	22.0	26.5	28.0	26.0	27.0	37.5	24.0	30.0	30.5	21.5	25.5
21	31.0	24.0	26.0	---	---	---	31.0	25.0	27.0	30.5	22.0	25.5
22	30.5	22.5	26.0	---	---	---	33.5	24.5	28.0	30.5	22.0	26.0
23	29.0	22.0	25.5	---	---	---	30.0	24.5	26.5	31.5	22.0	26.0
24	31.0	22.0	26.5	---	---	---	29.5	25.0	26.5	30.5	22.0	25.5
25	36.0	17.0	28.0	---	---	---	26.5	22.5	24.5	30.5	20.5	24.0
26	38.0	20.0	29.0	---	---	---	32.0	22.5	25.5	30.5	21.5	24.5
27	39.0	21.5	30.5	---	---	---	30.0	23.5	26.0	31.0	20.0	25.0
28	40.5	21.5	30.0	---	---	---	25.0	21.0	23.0	28.5	22.0	25.0
29	39.0	22.0	30.5	---	---	---	27.0	21.5	24.0	28.5	23.0	25.0
30	38.5	24.0	30.5	---	---	---	28.0	20.5	24.0	23.0	20.0	22.0
31	---	---	---	---	---	---	28.0	21.5	23.5	---	---	---
MONTH	40.5	17.0	27.5	34.0	20.0	26.5	39.0	20.5	27.0	33.5	17.5	24.5

08082000 SALT FORK BRAZOS RIVER NEAR ASPERMONT, TX
(National stream-quality accounting network)

LOCATION.--Lat 33°20'02", long 100°14'16", Stonewall County, Hydrologic Unit 12050007, on left bank at downstream side of bridge on U.S. Highway 83, 5.5 mi downstream from Salt Croton Creek, 13.2 mi north of Aspermont, and at mile 27.3 measured from confluence with Double Mountain Fork Brazos River which is at mile 923.2 on the Brazos River.

DRAINAGE AREA.--5,130 mi², of which 2,634 mi² probably is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1923 to August 1925, June 1939 to current year.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,588.70 ft above National Geodetic Vertical Datum of 1929. Dec. 5, 1923, to Aug. 29, 1925, nonrecording gage at site 6.7 mi downstream at different datum. June 15, 1939, to July 13, 1972, water-stage recorder at present site. July 14, 1972, to July 14, 1975, at site 0.1 mi upstream at same datum.

REMARKS.--No estimated daily discharges. Records fair. No large diversion above station. Some regulation by White River Reservoir (capacity, 44,900 acre-ft), 106 mi upstream.

AVERAGE DISCHARGE.--47 years (water years 1940-86), 106 ft³/s (76,800 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 52,200 ft³/s Sept. 25, 1955 (gage height, 14.92 ft), from rating curve extended above 29,000 ft³/s; no flow at times most years.
Maximum stage since at least 1900, that of Sept. 25, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in December 1913 reached a stage of 14.4 ft, and flood in November 1934 reached a stage of 13.7 ft, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 12,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
July 3	1200	*8,370	*7.50	No other peak greater than base discharge.			

Minimum daily discharge, 0.25 ft³/s Oct. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	44	18	10	7.5	6.5	2.6	4.2	67	54	.89	158
2	2.6	43	17	9.8	8.2	6.6	4.2	3.5	92	620	.86	146
3	1.6	41	16	9.2	8.7	6.3	3.9	2.4	69	2300	.72	115
4	.89	37	16	8.9	8.5	6.5	5.2	1.7	93	484	.67	1740
5	.54	34	15	8.2	14	6.4	4.7	1.3	193	[illegible]	9.5	4780
6	.56	32	15	8.4	23	6.3	3.7	.74	234	[illegible]	1.6	1740
7	.47	31	15	7.8	23	6.4	3.6	.89	120	98	.78	582
8	.41	31	14	7.8	19	6.2	3.8	433	370	73	.66	439
9	.25	30	14	7.8	17	6.2	3.3	124	235	44	1.0	442
10	167	26	14	8.1	15	5.4	3.2	139	129	32	.76	441
11	1940	24	14	8.2	14	5.2	3.2	168	92	31	.72	409
12	655	24	14	8.5	15	4.7	2.6	55	66	22	.54	352
13	480	25	15	8.2	14	5.2	2.5	34	44	12	.48	293
14	307	34	15	8.4	13	5.7	1.7	25	29	5.4	.49	248
15	410	37	15	8.2	13	7.9	1.5	17	21	3.6	29	218
16	290	26	15	8.5	12	9.8	1.3	13	15	5.9	2970	212
17	280	25	13	8.7	9.9	8.7	1.1	7.6	11	8.5	716	177
18	4230	25	13	8.3	9.1	6.0	.93	6.2	63	1.6	366	154
19	1480	23	13	7.6	8.5	4.9	24	5.4	131	1.4	225	139
20	423	20	13	7.7	7.4	4.2	61	4.2	245	2.6	147	124
21	285	19	12	7.3	6.5	4.0	52	2.6	267	2.6	103	109
22	233	19	12	6.8	6.8	3.9	24	1.4	113	2.6	87	105
23	187	19	11	7.5	6.8	3.7	14	.80	148	2.3	54	96
24	157	19	10	7.8	6.8	3.5	11	.59	160	2.0	38	84
25	131	19	9.6	7.5	7.7	3.3	11	28	85	1.8	69	76
26	112	20	10	7.1	7.6	3.1	23	29	77	1.6	180	71
27	94	19	10	6.9	7.3	3.1	78	153	72	1.4	90	71
28	80	19	10	7.1	6.8	3.0	18	123	73	1.4	154	62
29	64	18	10	7.4	---	2.9	9.1	50	50	1.4	90	63
30	54	19	11	7.4	---	3.2	5.5	56	30	1.3	84	351
31	48	---	10	7.3	---	3.8	---	43	---	1.0	78	---
TOTAL	12118.32	802	409.6	248.4	316.3	162.6	383.63	1533.52	3394	4167.4	5499.67	13997
MEAN	391	26.7	13.2	8.01	11.3	5.25	12.8	49.5	113	134	177	467
MAX	4230	44	18	10	23	9.8	78	433	370	2300	2970	4780
MIN	.25	18	9.6	6.8	6.5	2.9	.93	.59	11	1.0	.48	62
AC-FT	24040	1590	812	493	627	323	761	3040	6730	8270	10910	27760

CAL YR 1985 TOTAL 30053.01 MEAN 82.3 MAX 4230 MIN .03 AC-FT 59610
WTR YR 1986 TOTAL 43032.44 MEAN 118 MAX 4780 MIN .25 AC-FT 85350

08082000 SALT FORK BRAZOS RIVER NEAR ASPERMONT, TX--Continued
(National stream-quality accounting network)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: October 1948 to September 1951, October 1956 to September 1974. Chemical and biochemical analyses: October 1974 to current year. Pesticide analyses: March to September 1979.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1948 to September 1951, October 1956 to September 1982.
WATER TEMPERATURES: October 1948 to September 1951, October 1956 to September 1982.

INSTRUMENTATION.--Specific conductance was recorded continuously from January 1969 to September 1982.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 173,000 microsiemens Apr. 12, 1974; minimum daily, 1,690 microsiemens July 8, 1960.
WATER TEMPERATURES: Maximum daily, 38.0°C Aug. 2, 1973; minimum daily, 0.0°C on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)
OCT 23...	1110	307	6060	8.00	19.0	1400	10.8	126	0.3	640	800	700
FEB 05...	1430	13	59300	7.90	12.5	1.2	9.7	124	1.0	220	290	3400
JUN 18...	1130	72	25200	7.80	23.5	1000	9.1	123	2.8	K1500	3300	1700
AUG 20...	1535	166	4860	8.10	30.0	750	8.1	--	1.8	420	720	470

DATE	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT 23...	560	220	35	1100	19	6.8	134	520	1800	1.0	8.2	3590
FEB 05...	3300	900	280	15000	120	36	104	2200	25000	0.4	5.2	42000
JUN 18...	1600	460	130	5400	59	16	100	1200	8600	0.6	7.5	16400
AUG 20...	360	140	30	880	18	7.0	110	400	1300	0.7	10	2820

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)
OCT 23...	3800	--	<0.01	0.10	0.27	0.08	0.73	1.0	0.09	0.01	<0.01	--
FEB 05. .	44000	0.39	0.03	0.42	0.39	0.34	0.31	0.7	<0.01	<0.01	<0.01	--
JUN 18...	16000	--	<0.01	<0.10	0.23	0.16	1.6	1.8	0.11	0.02	0.01	0.03
AUG 20...	2800	--	<0.01	0.22	0.21	0.09	1.1	1.3	0.47	0.02	0.02	0.06

DATE	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)
OCT 23...	1010	837	80	20	4	300	<10	<1	<1	1	3	30
FEB 05...	112	3.9	99	10	1	160	<10	2	<1	<1	4	190
JUN 18...	2450	476	99	10	3	--	<10	<1	<1	<1	2	60
AUG 20...	1870	838	63	--	--	--	--	--	--	--	--	--

08082000 SALT FORK BRAZOS RIVER NEAR ASPERMONT, TX--Continued
(National stream-quality accounting network)

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT											
23...	1	50	10	<0.1	5	3	<1	<1	2200	32	20
FEB											
05...	<1	160	140	0.2	30	<1	6	<1	14000	390	20
JUN											
18...	<5	100	10	<0.1	6	2	1	<1	7000	<1	20
AUG											
20...	--	--	--	--	--	--	--	--	--	--	--

08082180 NORTH CROTON CREEK NEAR KNOX CITY, TX

LOCATION.--Lat 33°22'59", long 100°04'51", Stonewall County, Hydrologic Unit 12060101, on left bank 600 ft downstream from Wedington Creek, 9.5 mi upstream from mouth, and 15.4 mi southwest of Knox City.

DRAINAGE AREA.--251 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1965 to September 1986 (discontinued).

REVISED RECORDS.--WRD TX-75-1: 1966-67, 1969-74.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,462.44 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 1-7, 26, Feb. 2, July 10-28. Records good except those for estimated days, which are fair. No diversion or regulation above station. Recording rain gage at station prior to May 1, 1978.

AVERAGE DISCHARGE.--21 years, 15.6 ft³/s (0.84 in/yr), 11,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,100 ft³/s Aug. 30, 1966 (gage height, 32.36 ft), from rating curve extended above 240 ft³/s on basis of step-backwater analysis and slope-area measurement of 2,660, 6,530, and 32,100 ft³/s; no flow at times.

Maximum stage since at least 1921, that of Aug. 30, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1932 reached a stage of about 32 ft, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 18	1500	2,000	17.95	Sept. 5	0200	*3,810	*22.40
July 4	0530	2,290	18.77				

Minimum daily discharge, 0.14 ft³/s June 28-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	9.9	3.0	2.1	1.3	.57	.82	2.1	5.8	.54	.27	1.5
2	2.5	7.9	2.9	2.1	1.2	.55	.46	.84	40	6.1	.26	.88
3	2.1	7.3	2.6	2.1	1.1	.55	.34	.51	30	285	.27	1.8
4	1.6	3.4	2.3	2.1	1.4	.63	.43	.41	19	1220	.27	731
5	1.4	6.2	2.3	2.1	1.8	.70	.59	.34	12	49	.27	1970
6	1.1	4.2	2.3	1.9	2.1	.78	.62	.22	4.4	28	.26	155
7	.79	.66	2.3	1.6	2.0	.89	.62	.16	5.6	22	.24	45
8	.50	.60	2.3	1.8	2.0	.86	.62	.16	3.6	18	.24	36
9	.42	.54	2.3	2.0	1.9	.75	.58	2.7	2.4	17	114	31
10	20	.48	2.3	2.0	1.8	.77	.48	2.3	1.6	15	8.5	26
11	2.3	.52	2.3	1.8	1.8	.70	.48	.53	1.1	13	2.6	23
12	2.6	.55	2.3	1.6	1.6	.70	.47	.40	.74	12	1.4	21
13	4.8	.55	2.3	1.6	1.6	.72	.41	.39	.56	10	.82	19
14	60	.77	2.5	1.6	1.5	.81	.35	.37	.39	9.1	.44	17
15	147	1.3	2.7	1.5	1.5	.89	.30	.24	.36	7.8	.86	48
16	20	22	2.5	1.6	1.4	.89	.39	.24	.35	6.6	1.2	19
17	67	5.7	2.2	1.6	1.4	.89	.42	.24	.31	5.9	2.2	12
18	1640	4.4	2.1	1.5	1.3	.89	.42	.27	.31	5.2	1.2	9.7
19	311	3.8	2.1	1.4	1.3	.83	2.7	.29	2.3	4.5	.62	8.2
20	42	3.3	2.1	1.2	1.2	.79	.73	.26	4.9	3.9	.30	6.9
21	30	3.1	2.3	1.7	1.4	.77	.80	.23	1.5	3.4	2.5	6.1
22	25	3.1	2.3	1.5	1.3	.70	.74	.20	.75	2.9	.90	5.3
23	19	3.1	2.3	.45	.90	.70	.53	.17	.60	2.5	1.6	4.8
24	16	3.1	2.3	.26	.70	.70	.47	.17	.49	2.1	1.2	4.1
25	16	3.1	2.3	3.2	.70	.69	.67	.28	.34	1.8	.78	3.7
26	16	3.1	2.2	1.4	.70	.62	4.5	.44	.26	1.6	77	3.4
27	27	3.1	2.1	1.5	.66	.62	3.9	1.8	.22	1.2	94	2.9
28	12	3.1	2.1	2.3	.55	.62	1.8	1.4	.14	1.0	15	2.7
29	12	3.1	2.2	2.3	---	.62	.94	.92	.14	.62	5.7	3.7
30	12	3.1	2.2	1.2	---	.66	2.0	1.2	.14	.49	2.0	3.4
31	11	---	2.1	2.1	---	2.3	---	.97	---	.34	2.2	---
TOTAL	2526.21	115.07	72.1	53.11	38.11	24.16	28.58	20.75	140.30	1756.59	339.10	3222.08
MEAN	81.5	3.84	2.33	1.71	1.36	.78	.95	.67	4.68	56.7	10.9	107
MAX	1640	22	3.0	3.2	2.1	2.3	4.5	2.7	40	1220	114	1970
MIN	.42	.48	2.1	.26	.55	.55	.30	.16	.14	.34	.24	.88
CFSM	.32	.02	.01	.01	.01	.00	.00	.00	.02	.23	.04	.43
IN.	.37	.02	.01	.01	.01	.00	.00	.00	.02	.26	.05	.48
AC-FT	5010	228	143	105	76	48	57	41	278	3480	673	6390

CAL YR 1985 TOTAL 6142.92 MEAN 16.8 MAX 1640 MIN .03 CFSM .07 IN. .91 AC-FT 12180
WTR YR 1986 TOTAL 8336.16 MEAN 22.8 MAX 1970 MIN .14 CFSM .09 IN. 1.24 AC-FT 16530

08082180 NORTH CROTON CREEK NEAR KNOX CITY, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1986.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1965 to September 1986.
WATER TEMPERATURES: October 1965 to September 1986.

REMARKS.--Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the Geological Survey District office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 48,600 microsiemens May 26, 1981; minimum daily, 975 microsiemens Oct. 19, 1983.
WATER TEMPERATURES: Maximum daily, 37.0°C June 16, 1978; minimum daily, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 33,900 microsiemens June 29; minimum daily, 2,110 microsiemens Sept. 5.
WATER TEMPERATURES: Maximum daily, 33.0°C July 22; minimum daily, 0.0°C on several days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT									
08...	1110	0.52	15400	20.0	3000	2900	780	250	2800
NOV									
26...	1110	3.0	17200	15.0	3300	3100	830	300	3100
MAR									
05...	1015	0.7	16200	11.0	3600	3400	820	380	2800
APR									
24...	1205	0.48	22200	25.5	3900	3700	910	400	3800
JUN									
12...	1005	0.68	21000	21.5	3300	3200	870	280	4000
JUL									
29...	1220	0.65	13000	29.0	3300	3200	880	270	2000

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT								
08...	23	22	126	2400	4800	0.4	6.8	11000
NOV								
26...	24	22	185	2600	5100	0.4	5.5	12000
MAR								
05...	21	21	169	2600	4600	0.4	1.4	11000
APR								
24...	27	29	174	3100	7000	0.3	3.3	15000
JUN								
12...	31	28	128	2600	6700	0.3	1.5	15000
JUL								
29...	16	19	135	2400	3600	0.4	3.7	9300

MONTHLY AND ANNUAL MEANS AND LOADS FOR OCTOBER 1985 TO SEPTEMBER 1986

MONTH YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-MHOS)	DIS-SOLVED SOLIDS (MG/L)	DIS-SOLVED SOLIDS (TONS)	DIS-SOLVED CHLORIDE (MG/L)	DIS-SOLVED CHLORIDE (TONS)	DIS-SOLVED SULFATE (MG/L)	DIS-SOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT. 1985	2526.21	4060	2900	19700	1100	7510	790	5380	940
NOV. 1985	115.07	15700	10800	3370	4700	1460	2300	720	*
DEC. 1985	72.1	19700	13500	2630	6100	1180	2700	518	*
JAN. 1986	53.[illegible]	20600	14100	2020	6400	914	2700	384	*
FEB. 1986	38.11	21800	14900	1530	6800	705	2700	280	*
MAR. 1986	24.16	19400	13300	870	6000	389	2600	172	*
APR. 1986	28.58	18800	12900	996	5800	444	2600	198	*
MAY 1986	20.75	10100	13100	733	5900	328	2600	145	*
JUNE 1986	140.30	9780	6480	2450	2700	1030	1500	566	1900
JULY 1986	1756.58	4930	3490	16600	1400	6480	910	4310	1100
AUG. 1986	330.10	5270	3750	3430	1400	1370	1000	920	1200
SEPT 1986	3222.08	3130	2240	19500	830	7240	640	5530	750
TOTAL	8336.36	**	**	73800	**	28000	**	19100	**
WTD.AVG.	23	4630	3280	**	1300	**	850	**	1000

08082180 NORTH CROTON CREEK NEAR KNOX CITY, TX--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
EQUIVALENT MEAN

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16300	9860	18300	20400	23400	16200	20700	23000	19700	32400	13400	10400
2	16500	9930	18800	20400	24500	16800	20600	22700	6160	23200	15700	11000
3	16100	9870	18600	20300	23900	17300	20500	22300	4270	10500	15500	10600
4	16800	13400	18900	20800	16400	17100	19600	22200	5150	2200	15600	3220
5	15200	16800	19100	21000	17700	17000	18100	21800	7520	8500	15600	2110
6	16600	15100	19300	20500	20200	16800	18900	21400	9430	9620	15800	3540
7	16200	13900	19400	21300	22100	16700	20400	21000	13200	11500	16000	6660
8	16100	13300	19300	21400	21700	16600	21500	21800	16800	11600	16200	6710
9	15800	10500	19100	21000	21400	17400	21600	15100	19000	11500	5250	6790
10	12100	10400	18900	20400	25400	17300	21200	13500	20800	14900	6650	7180
11	15800	10000	19100	20100	24300	17800	20500	15600	20900	15900	7760	7840
12	16900	10200	19300	20300	23000	18000	20000	17000	21000	17200	9660	8160
13	16800	9870	19600	20500	22100	18600	20100	18300	20900	18300	11000	7860
14	13600	8700	19400	21600	21200	18800	20500	18400	21000	11600	13500	8940
15	9010	8340	19200	21300	24200	19600	20700	18700	21000	11200	14600	6520
16	10100	22400	18900	21100	23300	19700	21300	19000	21100	11000	14700	7460
17	8990	18100	19100	21200	23400	19800	21400	19300	21000	10700	18300	7980
18	2210	15200	19900	22900	22600	19900	21700	19400	20400	10400	18400	8000
19	4040	13900	20200	22000	22400	20000	21200	19800	20000	10200	22500	8010
20	5010	15400	21200	21300	22600	20800	22200	20100	25400	10100	24700	11200
21	5160	15100	21800	19300	22000	21000	21800	20400	23900	9530	23500	11300
22	8140	14900	21600	18000	22100	21200	21500	21600	22000	9340	22900	14000
23	8480	17000	21300	15900	21800	21400	21200	21700	20400	8790	21000	14400
24	8610	16300	20900	14800	20900	21500	21900	22100	26300	11000	16000	14900
25	8670	16400	20500	16800	19600	21700	20600	22900	26500	11100	18500	15300
26	8780	16900	20300	14300	18200	21900	15400	22300	28700	11000	4800	16100
27	8350	17000	20200	14100	16900	21700	13900	21000	29800	11100	3040	16500
28	8870	17100	20100	22600	16100	22000	13700	19500	31500	12000	4210	17600
29	9130	17200	20400	23900	---	22100	19900	20400	33900	13000	5440	18200
30	9000	17600	20200	24100	---	21900	24100	18700	32500	12100	8110	18900
31	9790	---	20400	25600	---	21200	---	20000	---	13600	10900	---
MEAN	11400	14000	19800	20300	21600	19300	20200	20000	20300	12400	13800	10200

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	---	---	9.0	15.0	7.0	20.0	22.0	26.0	26.0	24.0	25.0
2	20.0	15.0	1.0	---	10.0	---	---	21.0	25.0	30.0	23.0	20.0
3	18.0	13.0	.0	6.0	14.0	---	20.0	25.0	---	---	---	---
4	18.0	16.0	---	5.0	11.0	---	20.0	27.0	---	---	24.0	21.0
5	21.0	16.0	9.0	6.0	---	---	19.0	27.0	---	---	24.0	21.0
6	18.0	---	9.0	---	---	12.0	24.0	20.0	26.0	29.0	24.0	---
7	25.0	21.0	6.0	4.0	4.0	11.0	22.0	27.0	---	32.0	---	22.0
8	23.0	---	5.0	.0	3.0	18.0	17.0	28.0	30.0	---	26.0	---
9	23.0	22.0	9.0	.0	3.0	18.0	17.0	---	27.0	31.0	26.0	---
10	---	11.0	8.0	2.0	.0	17.0	19.0	28.0	28.0	30.0	25.0	---
11	22.0	9.0	---	2.0	---	17.0	19.0	28.0	30.0	32.0	25.0	---
12	25.0	15.0	---	4.0	---	18.0	18.0	26.0	30.0	32.0	26.0	25.0
13	22.0	17.0	---	4.0	---	16.0	18.0	29.0	25.0	30.0	25.0	22.0
14	19.0	9.0	---	4.0	.0	13.0	18.0	30.0	25.0	26.0	---	---
15	20.0	10.0	2.0	7.0	6.0	13.0	18.0	26.0	27.0	25.0	30.0	25.0
16	---	10.0	.0	5.0	11.0	15.0	18.0	26.0	30.0	26.0	25.0	26.0
17	---	18.0	3.0	.0	11.0	15.0	19.0	---	28.0	25.0	26.0	24.0
18	---	18.0	8.0	8.0	12.0	16.0	25.0	18.0	28.0	25.0	26.0	---
19	---	16.0	6.0	8.0	15.0	16.0	---	21.0	28.0	25.0	30.0	29.0
20	18.0	15.0	6.0	5.0	15.0	14.0	17.0	21.0	32.0	27.0	32.0	29.0
21	20.0	9.0	5.0	12.0	10.0	---	17.0	28.0	27.0	25.0	30.0	24.0
22	---	9.0	3.0	6.0	13.0	14.0	21.0	25.0	20.0	33.0	31.0	24.0
23	22.0	11.0	---	6.0	13.0	18.0	20.0	25.0	32.0	30.0	30.0	30.0
24	21.0	8.0	---	9.0	13.0	18.0	---	25.0	30.0	27.0	30.0	30.0
25	21.0	5.0	---	9.0	---	20.0	25.0	27.0	28.0	28.0	27.0	30.0
26	21.0	13.0	8.0	6.0	---	23.0	27.0	---	28.0	27.0	25.0	24.0
27	20.0	---	7.0	5.0	---	23.0	23.0	25.0	32.0	27.0	---	24.0
28	20.0	---	5.0	5.0	7.0	22.0	20.0	23.0	30.0	27.0	25.0	24.0
29	18.0	---	6.0	8.0	---	21.0	---	---	26.0	---	25.0	---
30	18.0	12.0	9.0	6.0	---	20.0	22.0	22.0	26.0	28.0	25.0	23.0
31	13.0	---	---	9.0	---	19.0	---	25.0	---	24.0	25.0	---
MEAN	20.0	13.5	5.5	5.5	9.5	16.5	20.0	25.0	28.0	28.0	26.5	25.0

08082500 BRAZOS RIVER AT SEYMOUR, TX

LOCATION.--Lat 33°34'51", long 99°16'02", Baylor County, Hydrologic Unit 12060101, on left bank at downstream side of bridge on U.S. Highways 277 and 283, 0.8 mi upstream from Wichita Valley Railway bridge, 1.0 mi southwest of courthouse in Seymour, and at mile 847.4.

DRAINAGE AREA.--15,538 mi², approximately, of which 9,566 mi² probably is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1923 to current year.

REVISED RECORDS.--WSP 808: 1924-29. WSP 1312: 1933. WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,238.97 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 6, 1972, at datum 2.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. There are small diversions upstream from station for irrigation and oilfield operation. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see station 08080950. Gage-height telemeter at station via Sutron Data Collection Platform.

AVERAGE DISCHARGE.--62 years (water years 1925-86), 372 ft³/s (269,500 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 95,400 ft³/s Oct. 16, 1926 (gage height, 17.16 ft, from floodmark, present datum), from rating curve extended above 48,000 ft³/s on basis of slope-area measurement of 95,400 ft³/s; maximum gage height, 23.00 ft, present datum, Sept. 28, 1955 (discharge, 71,200 ft³/s); no flow at times.
Since 1906, the maximum stage was that of Sept. 28, 1955, and maximum discharge was that of Oct. 16, 1926.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood in 1906 reached about the same stage as the flood in 1955.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 11,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 19	2100	11,900	9.77	Sept. 6	1830	*13,800	*10.77

Minimum discharge, 2.7 ft³/s Aug. 6, 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	324	93	53	32	28	15	111	566	289	7.7	1960
2	107	295	83	50	31	27	26	214	916	918	5.9	1280
3	83	281	88	49	38	25	31	101	543	896	6.5	1760
4	55	255	85	47	36	25	43	74	1760	4200	6.1	1960
5	46	236	83	48	42	24	72	62	2730	2360	4.5	7060
6	36	215	84	46	56	24	121	53	1490	1870	3.5	12000
7	26	198	79	42	55	22	74	45	1920	1140	5.5	5020
8	21	186	75	42	58	22	48	40	1930	846	14	2420
9	18	181	75	42	57	24	35	40	1750	612	7.7	1710
10	29	163	69	42	55	19	31	193	1150	453	4.1	1430
11	416	150	69	40	57	24	28	531	892	355	28	1090
12	3870	144	71	40	59	28	26	263	641	282	40	883
13	2100	156	71	42	61	37	23	249	628	234	37	730
14	2040	138	71	41	52	31	19	192	417	177	19	608
15	1460	136	75	41	53	34	17	114	378	142	15	504
16	1150	148	73	41	51	25	15	313	307	115	11	420
17	1030	142	68	39	48	26	12	270	267	94	1000	418
18	4290	155	69	37	44	85	13	391	251	77	1450	408
19	10400	128	70	38	42	44	60	119	300	70	1230	305
20	4620	109	69	37	36	28	185	58	417	63	891	252
21	2240	103	68	34	34	29	219	38	756	56	654	221
22	1570	105	66	34	33	27	391	27	669	73	522	196
23	1220	110	65	35	32	24	437	20	897	90	461	175
24	1000	102	62	33	31	23	245	19	524	52	360	165
25	841	101	61	31	33	22	167	25	340	44	270	144
26	709	99	60	31	32	22	127	44	311	35	217	124
27	610	93	57	30	29	21	570	47	366	27	314	113
28	508	92	57	31	28	20	247	24	240	22	1000	689
29	467	92	56	31	---	18	152	117	312	17	1750	488
30	402	95	55	31	---	16	145	252	210	12	2020	255
31	363	---	52	33	---	15	---	324	---	9.1	1810	---
TOTAL	41806	4732	2179	1211	1215	839	3594	4370	23878	15630.1	14164.5	44788
MEAN	1349	158	70.3	39.1	43.4	27.1	120	141	796	504	457	1493
MAX	10400	324	93	53	61	85	570	531	2730	4200	2020	12000
MIN	18	92	52	30	28	15	12	19	210	9.1	3.5	113
AC-FT	82920	9390	4320	2400	2410	1660	7130	8670	47360	31000	28100	88840

CAL YR 1985 TOTAL 150103.05 MEAN 411 MAX 10400 MIN .00 AC-FT 297700
WTR YR 1986 TOTAL 158406.6 MEAN 434 MAX 12000 MIN 3.5 AC-FT 314200

08082500 BRAZOS RIVER AT SEYMOUR, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: August 1942 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: August 1959 to current year.
WATER TEMPERATUES: August 1959 to current year.

REMARKS.--Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the Geological Survey District office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 80,400 microsiemens May 24, 1971; minimum daily, 559 microsiemens May 22, 1979.
WATER TEMPERATURES (1959-84): Maximum daily, 38.0°C Aug. 1, 1983; minimum daily, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 23,400 microsiemens May 31; minimum daily, 1,360 microsiemens Aug. 19.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
OCT 19...	1645	11400	2100	--	19.5	520	430	170	24
NOV 25...	0945	100	13200	--	9.5	1600	1400	450	110
JAN 06...	1000	5.0	16200	--	3.5	1900	1700	530	130
MAY 12...	1100	279	7850	7.60	22.5	1000	970	320	60
JUL 04...	0920	7130	5120	7.50	23.0	970	860	330	35
SEP 06...	1435	12800	1520	7.40	--	290	210	91	16

DATE	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
OCT 19...	230	5	6.2	90	490	310	0.5	6.8	1300
NOV 25...	2800	32	12	139	1400	4100	0.7	9.8	9000
JAN 06...	3400	36	14	133	1800	5100	0.7	7.5	11000
MAY 12...	1300	18	10	77	1000	2100	0.5	8.7	4800
JUL 04...	730	11	8.3	104	930	1100	0.4	9.1	3200
SEP 06...	190	5	4.8	82	300	250	0.6	14	920

MONTHLY AND ANNUAL MEANS AND LOADS FOR OCTOBER 1985 TO SEPTEMBER 1986

MONTH	YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED SOLIDS (MG/L)	DISSOLVED SOLIDS (TONS)	DISSOLVED CHLORIDE (MG/L)	DISSOLVED CHLORIDE (TONS)	DISSOLVED SULFATE (MG/L)	DISSOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT.	1985	41806	2530	1540	174000	630	71200	340	38600	380
NOV.	1985	4732	10900	6920	88500	3100	39000	1300	16400	*
DEC.	1985	2179	15700	10200	60200	4700	27500	1700	10200	*
JAN.	1986	1211	16300	10600	34700	4900	15900	1800	5790	*
FEB.	1986	1215	17700	11700	38300	5400	17800	1900	6120	*
MAR.	1986	839	16000	10400	23700	4800	10800	1700	3950	*
APR.	1986	3594	7220	4540	44100	2000	19000	890	8670	1000
MAY	1986	4370	10100	6480	76400	2900	34100	1200	13700	*
JUNE	1986	23878	3300	2030	131000	540	54100	440	28300	500
JULY	1986	15630.1	3880	2390	101000	1000	42000	510	21500	580
AUG.	1986	14164.5	3850	2370	90800	990	37700	510	19400	570
SEPT	1986	44788	2510	1540	186000	630	76300	340	40700	380
TOTAL		158406.6	**	**	1049000	**	445000	**	213000	**
WTD.AVG.		434	3930	2450	**	1000	**	500	**	570

08082500 BRAZOS RIVER AT SEYMOUR, TX--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
EQUIVALENT MEAN

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4930	7340	13900	15900	16500	17100	18800	14000	10100	7040	14600	3110
2	5140	7850	14500	16000	16900	17000	16600	7830	3920	2270	14700	3750
3	3770	8170	15000	16100	15700	16800	12300	8160	4060	2360	14400	1720
4	5150	8310	15100	15900	15300	16600	10100	8170	3770	3150	14000	2330
5	6410	8540	15300	16000	14500	16900	8600	11000	1600	3210	14200	2140
6	7660	9210	15500	16200	14100	17000	8250	12400	3590	3200	14500	1430
7	8970	9880	15900	16300	15000	17100	8000	13000	2960	3320	14700	1730
8	9920	10300	16100	16400	14700	17000	7320	13400	2110	3460	13100	1840
9	9990	10500	16200	16200	15200	17300	8450	14100	2100	3590	13800	2100
10	8890	10700	15900	16200	15800	17400	9480	11800	2370	4220	13700	2420
11	6920	10600	15500	16100	16600	17000	10700	9560	2450	4800	11900	3030
12	2760	11300	15300	16000	17400	16700	10900	7850	2960	6250	10900	3470
13	2540	11000	15400	16200	18900	15500	12500	7150	3020	7190	11700	3920
14	2360	11200	15300	17000	20000	14200	14200	9730	2950	7840	12700	4180
15	2530	11200	15200	16400	22800	15100	15100	11200	2840	8590	12000	4660
16	2730	11400	15300	15600	21500	15200	16200	3100	3190	9150	9180	5780
17	2870	11600	15600	15800	20600	15000	17000	5450	3080	10000	4820	5810
18	2370	11200	15900	15900	19900	13200	17200	3430	3470	10900	3720	6090
19	2100	12600	16600	16200	19300	13400	13300	6050	2810	11300	1360	6310
20	1510	14400	16000	16300	19400	13600	5870	9700	2240	11500	2040	8300
21	1740	17900	16300	16400	19600	15000	2760	14300	1780	11600	2770	9170
22	1960	16200	16600	16500	19200	16900	4450	16900	3460	8890	3520	9310
23	2150	15000	16800	16300	19000	19200	6710	17200	4250	7260	4390	9290
24	2360	14300	16500	16600	18500	15700	11300	17500	8420	9270	5050	9660
25	3170	13200	16400	16800	18500	16300	11000	16600	7900	11800	5740	10200
26	3720	13300	16500	16700	18400	17000	10500	14800	4610	13500	6460	10100
27	4290	13300	16300	16900	18000	17700	4250	13600	5230	13900	6900	10200
28	4940	14200	16300	16800	17100	18100	4180	11300	5810	14200	7180	3130
29	5430	14700	16100	17000	---	18400	6140	14200	5170	14400	3750	3350
30	6390	14000	16200	16800	---	18800	11600	16300	5440	13700	2970	4380
31	7340	---	16100	16600	---	19000	---	23400	---	14500	3240	---
MEAN	4610	11800	15800	16300	17800	16500	10500	11700	3920	8280	8840	5100

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	13.0	3.0	8.0	19.0	9.0	19.0	26.0	22.0	25.0	37.0	---
2	14.0	12.0	1.5	12.0	---	---	20.0	25.0	25.0	27.0	30.0	25.0
3	19.0	---	9.0	---	19.0	17.0	25.0	25.0	24.0	26.0	31.0	25.0
4	---	---	---	8.0	15.0	18.0	---	25.0	25.0	25.0	29.0	25.0
5	---	12.0	3.5	---	15.0	20.0	22.0	25.0	27.0	29.0	26.0	---
6	---	---	---	10.0	15.0	20.0	---	32.0	27.0	30.0	37.0	25.0
7	14.0	25.0	7.0	---	7.0	18.0	---	---	25.0	---	---	20.0
8	20.0	18.0	---	5.0	---	16.0	22.0	33.0	27.0	---	34.0	25.0
9	---	18.0	17.0	7.0	---	---	---	---	28.0	28.5	34.0	25.0
10	18.0	12.0	---	4.0	2.0	22.0	18.0	24.0	---	---	27.0	28.0
11	21.0	10.0	3.0	5.0	.0	---	18.0	27.0	26.0	24.0	---	27.0
12	21.0	---	2.0	---	3.0	22.0	17.0	---	24.0	28.5	32.0	28.0
13	23.0	15.0	---	12.0	12.0	20.0	---	28.0	27.0	28.5	---	---
14	---	15.0	.0	12.0	---	---	23.0	---	25.0	---	30.5	28.0
15	18.0	11.0	.0	---	5.0	20.0	18.0	29.0	22.0	32.0	28.0	30.0
16	20.0	10.0	3.0	12.0	12.0	14.0	---	25.0	25.0	24.0	37.0	30.0
17	---	---	8.0	15.0	---	---	27.0	17.0	24.0	---	30.0	---
18	20.0	15.0	6.0	14.0	19.0	16.0	28.0	17.0	26.0	33.0	30.0	---
19	20.0	14.0	7.0	8.0	22.0	---	---	---	27.0	34.0	---	30.0
20	20.0	---	7.0	---	---	16.0	19.0	27.0	29.0	---	---	30.0
21	20.0	11.0	3.0	15.0	8.0	20.0	24.0	---	---	---	---	30.0
22	---	10.0	---	11.0	7.0	10.0	---	26.0	30.0	33.0	---	30.0
23	---	10.0	12.0	---	15.0	16.0	23.0	---	---	32.0	---	30.0
24	19.0	---	9.0	15.0	15.0	22.0	26.0	22.0	30.0	33.0	---	30.0
25	22.0	17.0	5.0	12.0	18.0	---	---	---	---	---	---	30.0
26	20.0	17.0	---	---	20.0	17.0	26.0	---	25.0	34.0	26.0	30.0
27	18.0	10.0	9.0	---	14.0	17.0	---	25.0	---	31.0	25.0	28.0
28	---	---	10.0	14.0	14.0	27.0	21.0	20.0	25.0	---	23.0	---
29	17.0	15.0	11.0	15.0	---	24.0	---	---	---	34.0	30.0	28.0
30	---	---	13.5	15.0	---	---	22.0	22.0	30.0	35.0	22.0	25.0
31	14.0	---	11.0	15.0	---	26.0	---	21.0	---	34.0	---	---
MEAN	19.0	14.0	6.5	11.0	12.5	18.5	22.0	25.0	26.0	30.0	30.0	27.5

08082700 MILLERS CREEK NEAR MUNDAY, TX

LOCATION.--Lat 33°19'45", long 99°27'53", Throckmorton County, Hydrologic Unit 12060101, near right bank at downstream side of bridge on Farm Road 1720, 12.7 mi southeast of Munday, and 24.6 mi upstream from mouth.

DRAINAGE AREA.--104 mi².

PERIOD OF RECORD.--July 1963 to current year.
Water-quality records.--Sediment records: October 1976 to September 1978.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 1,350 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: June 17-23. Records good except those for estimated daily discharges, which are fair. There are no known diversions upstream from station.

AVERAGE DISCHARGE.--23 years (water years 1964-86), 6.89 ft³/s (0.90 in/yr), 4,990 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,600 ft³/s Aug. 4, 1978 (gage height, 17.53 ft); no flow most of time.
Maximum stage since 1930, 18.0 ft in October 1962, from information by local resident.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1883 occurred June 13, 1930, and exceeded 18.0 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
June 5	1430	*761	*6.52	No other peak greater than base discharge.			

Minimum discharge, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	6.6	.14	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	178	.09	.00	.01
6	.00	.00	.00	.00	.00	.00	.00	.00	54	2.1	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	6.3	1.6	.00	.03
8	.00	.00	.00	.00	.00	.00	.00	.00	2.4	.80	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	1.0	.44	20	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.64	.19	7.8	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.45	.13	2.3	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.38	.09	.82	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.30	.04	.21	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.26	.02	.02	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.24	.01	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.28	.01	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.34	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.20	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.10	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.03	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	251.57	5.75	31.18	.05
MEAN	.00	.00	.00	.00	.00	.00	.00	.00	8.39	.19	1.01	.00
MAX	.00	.00	.00	.00	.00	.00	.00	.00	178	2.1	20	.03
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
CFSM	.00	.00	.00	.00	.00	.00	.00	.00	.08	.00	.01	.00
IN.	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00	.01	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	499	11	62	.1

CAL YR 1985 TOTAL 1748.43 MEAN 4.79 MAX 352 MIN .00 CFSM .05 IN. .63 AC-FT 3470
WTR YR 1986 TOTAL 288.55 MEAN .79 MAX 178 MIN .00 CFSM .01 IN. .10 AC-FT 572

08082800 MILLERS CREEK RESERVOIR NEAR BOMARTON, TX

LOCATION.--Lat 33°24'32", long 99°23'19", Baylor County, Hydrologic Unit 12060101, at intake tower on left bank of Millers Creek, 1.1 mi upstream from dam, 7.1 mi southeast of Bomarton, and 13.2 mi upstream from mouth.

DRAINAGE AREA.--240 mi².

PERIOD OF RECORD.--August 1974 to current year.
Water-quality records.--Chemical analyses: October 1975 to September 1984.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Freese and Nichols, Inc., Consulting Engineers bench mark).

REMARKS.--The reservoir is formed by an earthfill dam 9,250 ft long. The dam was completed in 1974 and storage began in July 1974. Dead storage, 1,240 acre-ft below elevation, 1,303.4 ft. The reservoir is used for municipal and industrial water supply. The uncontrolled spillway is an open cut 3,000 ft wide located on left bank about 600 ft upstream from levee. The service spillway is an uncontrolled morning-glory-type drop inlet, 16.5 ft square, that discharges through a 5.0-foot-square concrete conduit. Low-flow releases are made by valves in the outlet vault of the drop inlet. Figures given herein represent total contents. Data regarding the dam and reservoir are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam..	1,355.0	-
Crest of spillway...	1,340.1	49,080
Crest of spillway...	1,331.2	25,180
Lowest gated outlet (invert)....................................	1,305.0	1,660
Dead storage..	1,303.4	1,240

COOPERATION.--The area-capacity tables, prepared from data of Sept. 17, 1965, were provided by Freese and Nichols, Inc., Consulting Engineers. Record of diversions provided by North Central Texas Municipal Water Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 53,850 acre-ft June 26, 1982 (elevation, 1,341.42 ft); minimum contents were below dead storage elevation prior to Apr. 20, 1977, and July 17 to Aug. 3, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 16,430 acre-ft Oct. 18 at 1600 hours (elevation, 1,325.75 ft); minimum, 13,070 acre-feet Sept. 29 (elevation, 1,322.94 ft).

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,322.0	12,080	1,325.0	15,470
1,323.0	13,140	1,326.0	16,760
1,324.0	14,270		

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16280	16160	15750	15440	15100	14890	14470	14120	13740	14540	13730	13500
2	16260	16140	15730	15420	15130	14870	14610	14110	13730	14650	13670	13500
3	16270	16120	15730	15440	15150	14850	14580	14070	13710	14770	13640	13480
4	16190	16100	15720	15390	15130	14850	14580	14030	13880	14760	13630	13560
5	16180	16100	15710	15370	15160	14810	14570	14020	14610	14710	13570	13600
6	16140	16050	15720	15360	15180	14810	14530	13990	14980	14660	13550	13590
7	16140	16040	15700	15310	15140	14780	14540	13970	15040	14660	13720	13570
8	16120	16040	15710	15330	15130	14780	14480	13970	15040	14610	13860	13560
9	16120	16030	15680	15310	15080	14780	14460	13980	15040	14590	13860	13550
10	16130	15960	15660	15310	15080	14770	14450	13990	15020	14550	13920	13540
11	16130	15950	15650	15300	15070	14810	14440	13990	15000	14570	13910	13510
12	16160	15950	15630	15290	15070	14800	14420	13940	14970	14510	13890	13480
13	16190	15950	15620	15280	15070	14780	14440	13920	14910	14460	13840	13470
14	16230	15940	15610	15260	15050	14790	14340	13910	14910	14410	13810	13450
15	16210	15980	15600	15280	15070	14780	14320	13890	14890	14390	13800	13440
16	16190	15960	15580	15260	15050	14770	14310	13860	14900	14330	13780	13430
17	16220	15990	15580	15260	15050	14790	14260	13900	14900	14290	13760	13390
18	16400	15980	15560	15240	15040	14760	14250	13910	14910	14240	13730	13370
19	16400	15890	15560	15240	15040	14730	14310	13890	14900	14210	13680	13360
20	16400	15890	15550	15240	14990	14700	14280	13870	14910	14180	13650	13320
21	16390	15870	15530	15200	14980	14700	14280	13860	14870	14130	13630	13300
22	16370	15850	15550	15190	14980	14670	14260	13830	14840	14130	13590	13270
23	16350	15850	15520	15190	14970	14660	14240	13780	14800	14120	13560	13250
24	16350	15840	15500	15160	14970	14640	14190	13780	14780	14090	13520	13230
25	16340	15860	15490	15150	14970	14610	14180	13780	14760	14050	13500	13180
26	16310	15820	15500	15130	14940	14600	14160	13750	14730	13990	13480	13160
27	16310	15810	15470	15130	14920	14590	14130	13730	14680	13960	13460	13140
28	16280	15800	15470	15130	14890	14570	14110	13710	14650	13920	13460	13110
29	16250	15780	15470	15100	---	14550	14110	13710	14640	13870	13430	13100
30	16190	15760	15470	15100	---	14540	14090	13730	14590	13830	13380	13080
31	16170	---	15460	15100	---	14490	---	13740	---	13740	13500	---
MAX	16400	16160	15750	15440	15180	14890	14610	14120	15040	14770	13920	13600
MIN	16120	15760	15450	15100	14890	14490	14090	13710	13710	13740	13380	13080
(†)	1325.55	1325.23	1324.99	1324.70	1324.52	1324.19	1323.84	1323.54	1324.27	1324.54	1323.33	1322.95
(‡)	-130	-410	-300	-360	-210	-400	-400	-350	+850	-850	-240	-420
(††)	104	104	112	111	89.2	101	104	127	120	160	153	106

CAL YR 1985 MAX 20400 MIN 11710 (‡) +3950 (††) 1527
WTR YR 1986 MAX 16400 MIN 13080 (‡) -3220 (††) 1391

(†) Elevation, in feet, at end of month.
(‡) Change in contents, in acre-feet.
(††) Diversions, in acre-feet, for municipal use by North Central Texas Municipal Water Authority.

08083100 CLEAR FORK BRAZOS RIVER NEAR ROBY, TX

LOCATION.--Lat 32°47'15", long 100°23'18", Fisher County, Hydrologic Unit 12060102, on right bank at downstream side of pile bent of bridge on State Highway 70, 3.0 mi north of Roby, 3.2 mi upstream from Cottonwood Creek, and 255.7 mi upstream from mouth.

DRAINAGE AREA.--228 mi².

PERIOD OF RECORD.--December 1961 to current year.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,885.09 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. There are several small diversions above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--24 years (water years 1963-86), 10.6 ft³/s (0.63 in/yr), 7,680 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,050 ft³/s Oct. 18, 1965 (gage height, 21.48 ft); maximum gage height, 21.52 ft Sept. 19, 1969; no flow at times in 1963-67.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since the 1890's, about 22 ft in May and June 1935, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 30	2030	590	10.97	Sept. 2	0200	319	9.16
Aug. 27	1300	945	12.60	Sept. 4	0530	*4,130	*19.21
Aug. 28	2300	1,390	14.11				

Minimum daily discharge, 1.2 ft³/s Aug. 13, 14, 18-25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	2.0	2.1	2.3	3.5	2.6	2.1	2.3	9.3	3.2	1.5	97
2	1.7	2.0	2.1	2.3	3.6	2.5	2.6	2.2	7.0	3.6	1.4	119
3	1.7	2.0	2.1	2.2	3.7	2.4	2.6	2.2	138	57	1.4	109
4	1.7	1.9	2.0	2.3	3.5	2.4	2.1	2.2	16	85	1.4	1950
5	1.6	1.9	2.0	2.2	3.6	2.3	2.1	2.2	16	11	1.4	645
6	1.7	1.9	2.1	2.3	3.2	2.3	2.1	2.2	51	3.4	1.4	201
7	1.9	1.9	2.1	2.2	3.1	2.3	2.1	2.1	9.9	2.6	1.4	79
8	1.9	1.9	2.1	2.2	2.9	2.3	2.1	2.2	5.8	2.3	1.4	64
9	1.9	1.9	2.1	2.2	2.9	2.4	2.1	2.5	4.7	2.1	1.4	52
10	9.0	1.9	2.1	2.3	2.9	2.3	2.0	3.1	4.2	2.1	1.3	43
11	13	1.9	2.2	2.3	2.8	2.3	2.0	2.6	3.9	2.5	1.3	36
12	2.8	1.9	2.1	2.4	2.8	2.2	2.0	2.2	3.8	2.2	1.3	30
13	2.3	1.9	2.2	2.3	2.8	2.3	1.9	2.2	3.7	1.9	1.2	26
14	2.1	2.0	2.2	2.4	2.9	2.5	1.8	2.1	3.6	1.8	1.2	35
15	2.0	2.1	2.1	2.5	3.0	2.4	1.8	2.0	3.5	1.8	1.3	36
16	1.9	2.0	2.1	2.5	3.2	2.3	1.8	2.0	3.5	1.7	1.3	30
17	2.7	2.0	2.1	2.5	3.2	2.3	1.8	2.0	3.5	1.7	1.3	20
18	24	2.0	2.1	2.6	3.2	2.3	1.8	2.0	15	1.7	1.2	17
19	54	2.0	2.2	2.6	3.2	2.2	1.9	2.0	32	1.7	1.2	15
20	4.7	1.9	2.2	2.7	3.2	2.2	5.4	2.0	11	1.6	1.2	14
21	2.7	2.0	2.1	2.8	3.0	2.2	3.4	2.0	6.2	1.6	1.2	13
22	2.4	2.0	2.2	2.8	2.9	2.2	2.1	1.9	4.4	1.6	1.2	12
23	2.2	2.0	2.2	2.8	2.8	2.2	2.5	1.9	4.0	1.6	1.2	12
24	2.1	2.0	2.2	2.9	2.8	2.2	2.4	1.9	6.8	1.6	1.2	11
25	2.1	2.1	2.2	2.9	2.8	2.2	2.4	2.1	5.2	1.5	1.2	10
26	2.1	2.1	2.2	2.9	2.8	2.2	3.3	3.0	4.0	1.5	4.8	19
27	2.1	2.1	2.1	2.9	2.8	2.2	12	2.6	3.7	1.4	429	19
28	2.1	2.1	2.2	3.0	2.7	2.2	3.5	2.3	3.5	1.4	381	10
29	2.1	2.1	2.2	3.1	---	2.2	2.6	8.7	3.4	1.5	424	9.2
30	2.0	2.1	2.3	3.2	---	2.2	2.4	335	3.2	1.5	45	8.8
31	2.0	---	2.2	3.3	---	2.2	---	104	---	1.5	31	---
TOTAL	158.4	59.6	66.4	79.9	85.8	71.0	80.7	509.7	389.8	207.6	1347.3	3742.0
MEAN	5.11	1.99	2.14	2.58	3.06	2.29	2.69	16.4	13.0	6.70	43.5	125
MAX	54	2.1	2.3	3.3	3.7	2.6	12	335	138	85	429	1950
MIN	1.6	1.9	2.0	2.2	2.7	2.2	1.8	1.9	3.2	1.4	1.2	8.8
CFSM	.02	.01	.01	.01	.01	.01	.01	.07	.06	.03	.19	.55
IN.	.03	.01	.01	.01	.01	.01	.01	.08	.06	.03	.22	.61
AC-FT	314	118	132	158	170	141	160	1010	773	412	2670	7420

CAL YR 1985 TOTAL 3385.6 MEAN 9.28 MAX 741 MIN 1.4 CFSM .04 IN. .55 AC-FT 6720

WTR YR 1986 TOTAL 6798.2 MEAN 18.6 MAX 1950 MIN 1.2 CFSM .08 IN. 1.11 AC-FT 13480

08083240 CLEAR FORK BRAZOS RIVER AT HAWLEY, TX

LOCATION.--Lat 32°35'53", long 99°48'53", Jones County, Hydrologic Unit 12060102, on right bank 90 ft upstream from upstream bridge on U.S. Highways 83 and 277, 0.8 mi south of Hawley, 7.4 mi upstream from Mulberry Creek, and 188.6 mi upstream from mouth.

DRAINAGE AREA.--1,416 mi^2.

PERIOD OF RECORD.--October 1967 to current year.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,612.45 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 21, 1973, at datum 0.80 ft higher.

REMARKS.--Estimated daily discharges: Oct. 26 to Nov. 20. Records fair. Lake Sweetwater (capacity, 11,900 acre-ft) is located on a tributary upstream from gage.

AVERAGE DISCHARGE.--19 years, 54.4 ft^3/s (39,410 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,540 ft^3/s Sept. 30, 1980 (gage height, 21.07 ft, present datum); no flow July 30, 31, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1915 occurred in 1932; second highest stage in 1957, 25.0 ft, present datum, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 6	0600	2,380	15.15	Sept. 6	1200	*3,510	*16.70
Sept. 2	1830	2,080	14.65				

Minimum daily discharge, 0.17 ft^3/s July 1 (result of pumping).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	7.0	11	11	8.8	7.6	9.1	5.0	579	.17	1.4	379
2	24	7.0	11	12	11	6.6	9.7	4.8	226	21	1.4	1400
3	17	7.0	10	12	26	8.5	11	4.6	599	72	2.1	775
4	13	7.0	10	11	29	8.7	10	4.4	615	81	2.6	316
5	11	7.0	11	11	37	7.1	10	4.2	1120	165	2.0	966
6	9.0	7.0	11	8.6	35	8.6	10	4.0	2130	144	1.8	3220
7	7.7	7.0	11	10	31	8.1	10	4.0	1270	91	1.9	2360
8	6.9	7.0	11	9.8	26	8.0	9.8	3.9	246	66	2.2	1230
9	5.8	7.0	10	9.6	20	8.2	9.6	7.4	116	53	2.8	355
10	6.4	8.0	10	9.7	16	8.7	9.3	6.4	212	41	3.0	242
11	7.8	8.0	11	10	13	12	9.1	7.3	91	36	1.8	180
12	8.1	8.0	11	10	11	30	8.9	7.8	101	31	4.3	152
13	33	10	12	10	11	49	8.7	7.6	73	27	9.3	133
14	22	10	12	9.8	11	25	8.4	6.3	51	23	6.4	122
15	25	15	12	9.6	9.7	19	8.2	7.0	41	18	4.1	118
16	15	28	13	9.6	7.5	14	8.0	9.7	37	18	2.9	118
17	11	20	13	10	7.7	13	7.8	16	40	13	2.1	109
18	154	15	13	10	9.7	22	7.6	17	63	8.3	1.3	102
19	231	12	13	10	10	14	7.4	16	105	7.4	1.2	96
20	224	11	13	12	9.7	11	7.1	12	129	7.0	1.4	91
21	114	11	13	9.6	9.3	9.6	6.8	5.3	106	5.8	2.7	88
22	52	10	13	9.3	9.1	9.6	6.5	1.1	65	12	6.0	85
23	29	10	13	9.1	9.0	8.5	6.3	1.2	46	13	2.8	83
24	19	10	13	9.1	8.1	7.9	6.0	.82	37	8.3	7.2	82
25	15	10	13	8.4	7.5	8.2	5.8	1.8	28	5.9	13	79
26	10	10	9.5	6.8	8.1	7.5	5.6	3.4	21	7.6	20	78
27	8.0	10	10	6.3	8.2	6.9	5.8	4.6	20	3.9	69	77
28	7.0	10	11	7.2	8.2	8.4	5.6	4.2	17	2.8	91	79
29	7.0	10	10	9.6	---	9.1	5.4	22	8.1	2.6	590	81
30	7.0	11	11	9.1	---	9.1	5.2	130	2.2	2.2	778	75
31	7.0	---	11	8.7	---	9.1	---	370	---	1.4	595	---
TOTAL	1142.7	310.0	356.5	298.9	407.6	383.0	238.7	699.82	8194.3	988.37	2230.7	13271
MEAN	36.9	10.3	11.5	9.64	14.6	12.4	7.96	22.6	273	31.9	72.0	442
MAX	231	28	13	12	37	49	11	370	2130	165	778	3220
MIN	5.8	7.0	9.5	6.3	7.5	6.6	5.2	.82	2.2	.17	1.2	75
AC-FT	2270	615	707	593	808	760	473	1390	16250	1960	4420	26320

CAL YR 1985 TOTAL 23192.01 MEAN 63.5 MAX 1420 MIN .22 AC-FT 46000
WTR YR 1986 TOTAL 28521.59 MEAN 78.1 MAX 3220 MIN .17 AC-FT 56570

08083245 MULBERRY CREEK NEAR HAWLEY, TX

LOCATION.--Lat 32°34'04", long 99°47'32", Jones County, Hydrologic Unit 12060102, on right bank at downstream side of downstream bridge on U.S. Highways 83 and 277, 3.3 mi south of Hawley, and 5.8 mi upstream from mouth.

DRAINAGE AREA.--205 mi².

PERIOD OF RECORD.--December 1967 to current year.
Water-quality records: Chemical analyses: December 1967 to September 1983.

REVISED RECORDS.--WRD TX-74-1: 1972(M).

GAGE.--Water-stage recorder. Datum of gage is 1,615.98 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair except those for discharges below 5.0 ft³/s, which are poor. No known diversions above station.

AVERAGE DISCHARGE.--18 years (water years 1969-86), 9.05 ft³/s (0.60 in/yr), 6,560 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,750 ft³/s May 28, 1980 (gage height, 16.00 ft); no flow at times most years.
Maximum stage since 1932, that of May 28, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1957 reached a stage of about 16.0 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 18	0900	*1,380	*a13.36	June 5	0930	1,370	12.98
June 1	2100	395	7.84	July 2	1700	785	11.09
June 4	0430	970	11.96				

a From floodmark.

Minimum discharge, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.01	.00	.00	.00	.00	.00	.00	169	1.2	.06	2.0
2	.00	.00	.00	.00	.00	.00	.00	.00	61	424	.05	6.1
3	.00	.00	.00	.00	.00	.00	.00	.00	309	159	.04	1.0
4	.00	.00	.00	.00	.00	.00	.00	.00	369	70	.02	6.9
5	.00	.00	.00	.00	.39	.00	.00	.00	439	34	.02	67
6	.00	.00	.00	.00	2.3	.00	.00	.00	976	8.5	.01	135
7	.00	.00	.00	.00	4.0	.00	.00	.00	178	3.3	.01	29
8	.00	.00	.00	.00	1.9	.00	.00	.00	59	2.1	.01	6.9
9	.00	.00	.00	.00	.77	.00	.00	.00	30	1.6	.00	2.3
10	.00	.00	.00	.00	.50	.00	.00	.00	18	1.4	.00	1.2
11	.00	.00	.00	.00	.36	.00	.00	.00	17	1.4	.00	.72
12	.00	.00	.00	.00	.35	.00	.00	.00	11	1.3	.00	.50
13	.00	.00	.00	.00	.37	.00	.00	.00	7.7	1.1	.00	.35
14	.00	.00	.00	.00	.40	.00	.00	.00	5.9	.96	.00	78
15	.00	.00	.00	.00	.38	.00	.00	.00	5.0	.91	.00	8.8
16	.00	.00	.00	.00	.32	.00	.00	.00	4.3	.75	.00	1.7
17	.00	.00	.00	.00	.28	.00	.00	.00	4.5	.63	.00	.63
18	800	.11	.00	.00	.24	.01	.00	.00	9.3	.57	.00	.37
19	150	.96	.00	.00	.22	.03	.00	.00	22	.52	.00	.20
20	20	.13	.00	.00	.16	.67	.00	.00	6.8	.51	.00	.13
21	2.0	.01	.00	.00	.13	.19	.00	.00	5.2	.44	.00	.13
22	.35	.01	.00	.00	.09	.10	.00	.00	3.8	.41	.00	.11
23	.15	.01	.00	.00	.06	.07	.00	.00	3.2	.37	.00	.11
24	.10	.01	.00	.00	.02	.03	.00	.00	2.7	.28	.00	.09
25	.10	.00	.00	.00	.01	.02	.00	.00	2.4	.24	.00	.07
26	.06	.00	.00	.00	.00	.01	.00	.00	2.2	.21	.00	.07
27	.05	.00	.00	.00	.00	.00	.00	.00	2.0	.20	119	.06
28	.04	.00	.00	.00	.00	.00	.00	.00	1.8	.18	112	.05
29	.02	.00	.00	.00	---	.00	.00	.00	1.7	.15	43	12
30	.02	.00	.00	.00	---	.00	.00	.00	1.5	.11	6.5	.26
31	.01	---	.00	.00	---	.00	---	40	---	.09	1.3	---
TOTAL	972.90	1.25	.00	.00	13.25	1.13	.00	40.00	2728.0	716.43	282.02	361.75
MEAN	31.4	.04	.00	.00	.47	.04	.00	1.29	90.9	23.1	9.10	12.1
MAX	800	.96	.00	.00	4.0	.67	.00	40	976	424	119	135
MIN	.00	.00	.00	.00	.00	.00	.00	.00	1.5	.09	.00	.05
CFSM	.15	.00	.00	.00	.00	.00	.00	.01	.44	.11	.04	.06
IN.	.18	.00	.00	.00	.00	.00	.00	.01	.50	.13	.05	.07
AC-FT	1930	2.5	.00	.00	26	2.2	.00	79	5410	1420	559	718

CAL YR 1985 TOTAL 3051.54 MEAN 8.36 MAX 800 MIN .00 CFSM .04 IN. .55 AC-FT 6050
WTR YR 1986 TOTAL 5116.73 MEAN 14.0 MAX 976 MIN .00 CFSM .07 IN. .93 AC-FT 10150

08083500 FORT PHANTOM HILL RESERVOIR NEAR NUGENT, TX

LOCATION.--Lat 32°36'58", long 99°40'05", Jones County, Hydrologic Unit 12060102, at outlet gate tower near right bank, 120 ft upstream from dam on Elm Creek, 4.3 mi upstream from mouth, and 5.4 mi south of Nugent.

DRAINAGE AREA.--470 mi².

PERIOD OF RECORD.--July 1940 to September 1986 (discontinued). Prior to October 1965, monthend contents only.

REVISED RECORDS.--WSP 1562: 1953-57 (figures of monthend contents). WDR TX-76-2: Drainage area.

GAGE.--Nonrecording gage. Datum of gage is 1,580.78 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--The reservoir is formed by a rock-faced earthfill dam 3,740 ft long. The dam was completed and storage began in October 1938. The uncontrolled service spillway is a cut channel through natural ground with a concrete ogee weir located 0.7 mi from right end of dam. The service outlet works consist of a concrete tower with a 4.0- by 7.0-foot conduit. The service tower contains five gated openings at various elevations. The dam and reservoir are owned by the city of Abilene and were built to impound water for municipal use. Since July 1974, West Texas Utility Co. has operated a steam generating powerplant on the reservoir. The capacity table was based on a survey of Oct. 2, 1953. Figures given herein represent total contents. Data regarding the dam and reservoir are given in the following table:

	Gage height (feet)	Capacity (acre-feet)
Top of dam..	69.2	-
Crest of spillway..	55.1	74,310
Highest gated outlet (invert)....................................	28.0	10,330
Lowest gated outlet (invert).....................................	1.6	-

COOPERATION.--Record of gage heights were furnished by the city of Abilene. The capacity table was furnished by the U.S. Soil Conservation Service.

EXTREMES (at 0800) FOR PERIOD OF RECORD.--Maximum contents observed, 89,910 acre-ft May 25, 1957 (gage height, 58.7 ft); minimum observed, 19,040 acre-ft Apr. 23-25, 1953 (gage height, 34.5 ft).

EXTREMES (at 0800) FOR CURRENT YEAR.--Maximum contents observed, 71,910 acre-ft Sept. 10 (gage height, 54.5 ft); minimum observed, 41,720 acre-ft May 22-30 (gage height, 45.4 ft).

Capacity table (gage height, in feet, and total contents, in acre-feet)

45.0	40,640	51.0	58,880
48.0	49,130	55.0	73,900

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46750	54830	52560	50370	47940	48230	46450	43890	43060	61000	60650	60650
2	46750	54830	52560	50370	47940	48230	46160	43890	44460	61710	60290	60650
3	46750	54510	52230	50370	48230	47940	46160	43610	45870	65360	59940	62060
4	46750	54510	52230	50060	48230	47940	46160	43610	48230	66100	59940	63520
5	46750	54180	52230	50060	48230	47940	45870	43610	50990	66100	59940	64260
6	46450	54180	52230	50060	48530	47940	45870	43330	58540	65730	59580	66100
7	46450	54180	52230	50060	48530	47940	45870	43330	61000	65730	59580	67630
8	46450	54180	51920	50060	48530	47640	45870	43060	63150	65360	59230	69930
9	46450	54180	51920	49750	48530	47640	45590	43060	63150	64990	58880	71520
10	46450	53860	51920	49750	48530	47640	45590	42790	63150	64990	58880	71910
11	46450	53860	51610	49750	48530	47340	45590	42790	63520	64990	58540	71520
12	46450	53530	51610	49750	48530	47340	45310	42790	63520	64990	58540	71520
13	46450	53530	51610	49440	48530	47340	45310	42790	63150	64620	58540	71120
14	46450	53530	51610	49440	48530	47640	45310	42520	63150	64620	58200	71120
15	46450	53530	51300	49440	48530	47640	45310	42520	63150	64260	57860	71120
16	46450	53530	51300	49440	48530	47340	45030	42250	62780	63890	57860	70720
17	46450	53210	51300	49130	48530	47340	45030	42250	62780	63890	57520	70720
18	47340	53210	51300	49130	48530	47340	45030	42250	62420	63520	57520	70320
19	53530	52880	50990	49130	48530	47340	44740	42250	62780	63520	57180	70320
20	55160	52880	50990	49130	48530	47050	44740	41980	62420	63150	57180	70320
21	55160	52880	50990	48830	48530	47050	44740	41980	62420	62780	56840	70320
22	55160	52880	50990	48830	48230	47050	44740	41720	62420	62780	56840	69930
23	55160	52880	50990	48830	48230	47050	44740	41720	62420	62420	56840	69930
24	55160	52880	50990	48830	48230	47050	44460	41720	62060	62420	56500	69930
25	55160	52880	50680	48830	48230	47050	44460	41720	62060	62060	56160	69930
26	55160	52560	50680	48530	48230	46750	44460	41720	62060	61710	56160	69540
27	55160	52560	50680	48530	48230	46750	44180	41720	61710	61710	56160	69160
28	55160	52560	50680	48530	48230	46750	44180	41720	61710	61350	57520	69160
29	54830	52560	50680	48230	---	46750	44180	41720	61350	61350	57520	69930
30	54830	52560	50370	48230	---	46450	43890	41720	61350	61000	58200	69930
31	54830	---	50370	48230	---	46450	---	42520	---	61000	59580	---
MAX	55160	54830	52560	50370	48530	48230	46450	43890	63520	66100	60650	71910
MIN	46450	52560	50370	48230	47940	46450	43890	41720	43060	61000	56160	60650
(†)	49.8	49.1	48.4	47.7	47.7	47.1	46.2	45.7	51.7	51.6	51.2	54.0
(‡)	+8080	-2270	-2190	-2140	0	-1780	-2560	-1370	+18830	-350	-1420	+10350

CAL YR 1985 MAX 55160 MIN 32190 (‡) +21600
WTR YR 1986 MAX 71910 MIN 41720 (‡) +23180

(†) Gage height, in feet, at end of month.
(‡) Change in contents, in acre-feet.

08084000 CLEAR FORK BRAZOS RIVER AT NUGENT, TX

LOCATION.--Lat 32°41'24", long 99°40'09", Jones County, Hydrologic Unit 12060102, on right bank 33 ft downstream from bridge on Farm Road 600 at Nugent, 2 mi downstream from Elm Creek, 4 mi upstream from Deadman Creek, and 167.8 mi upstream from mouth.

DRAINAGE AREA.--2,199 mi^2.

PERIOD OF RECORD.--February 1924 to current year.
Water-quality records.--Chemical analyses: August 1948 to September 1953. Chemical and biochemical analyses: February 1968 to September 1981.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,531.91 ft above National Geodetic Vertical Datum of 1929 (levels by Brazos River Authority). Prior to Dec. 12, 1933, nonrecording gage at site 575 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Flow is affected by four upstream reservoirs with a total capacity of 103,600 acre-ft. There are numerous diversions above station for municipal supply and oilfield operation that materially affect streamflow.

AVERAGE DISCHARGE.--14 years (water years 1925-38) prior to completion of Fort Phantom Hill Reservoir, 186 ft^3/s (134,800 acre-ft/yr); 48 years (water years 1939-86) partially regulated, 79.5 ft^3/s (57,600 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 47,000 ft^3/s Sept. 8, 1932 (gage height, 27.05 ft), site then in use, from rating curve extended above 25,000 ft^3/s; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, 30 ft in 1876; floods in 1900 and May 1923 reached stages of 24 and 24.5 ft, respectively, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,590 ft^3/s Sept. 7 at 0600 hours (gage height, 9.41 ft); minimum, 0.73 ft^3/s Aug. 22-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	6.7	14	12	13	12	8.0	5.8	59	15	2.8	193
2	18	6.8	14	12	15	12	8.1	9.3	135	201	2.6	495
3	14	6.8	12	13	19	11	7.4	8.0	340	216	2.4	601
4	10	6.8	12	14	22	12	7.5	6.9	151	188	2.4	15
5	8.5	6.8	12	13	28	12	7.4	6.2	415	123	2.4	23
6	7.8	6.8	12	12	28	11	7.5	5.6	1540	165	2.4	1100
7	7.3	6.8	11	12	23	12	7.2	5.4	1710	60	2.2	2340
8	6.9	6.8	12	12	23	12	6.9	5.2	311	33	1.8	1290
9	6.8	7.2	12	12	26	12	8.3	4.6	230	23	1.8	319
10	6.8	7.8	12	12	18	12	7.2	4.4	278	18	1.3	398
11	6.3	7.3	12	12	15	12	7.0	3.9	279	18	1.3	274
12	7.0	7.5	12	13	14	13	7.0	3.4	107	16	1.8	207
13	7.6	8.2	12	12	14	29	6.6	3.4	98	14	1.7	163
14	19	9.5	12	13	14	22	6.5	3.5	55	12	1.6	193
15	13	12	12	13	14	17	5.8	3.1	41	12	4.5	144
16	15	16	12	13	13	15	5.1	2.6	36	10	4.4	129
17	11	17	12	13	13	14	4.7	2.8	33	10	3.5	105
18	746	19	12	14	12	17	5.1	4.5	49	9.4	2.7	92
19	461	15	12	13	13	17	5.9	7.0	76	7.7	2.1	76
20	164	12	12	13	14	14	7.4	6.8	187	6.8	1.6	67
21	138	11	12	14	13	12	16	6.3	108	6.6	1.4	62
22	39	12	12	13	12	12	15	4.5	84	5.9	1.1	58
23	19	12	12	13	12	12	8.2	2.8	46	6.5	1.1	55
24	13	12	12	13	12	10	7.5	17	36	8.6	1.8	50
25	10	12	12	13	13	9.7	8.1	16	31	6.6	2.1	48
26	8.7	14	12	13	12	9.4	8.2	2.6	27	5.2	2.9	46
27	7.5	14	12	12	12	9.4	7.4	1.7	22	4.8	36	44
28	6.8	15	11	12	12	9.2	6.8	1.5	24	4.6	270	44
29	6.8	14	12	12	---	9.3	6.4	1.9	21	3.7	255	156
30	6.6	14	12	14	---	8.8	5.6	12	18	3.2	17	54
31	6.1	---	12	14	---	9.0	---	132	---	2.6	20	---
TOTAL	1821.5	322.8	374	396	449	398.8	225.8	300.7	6547	1216.2	655.7	8841
MEAN	58.8	10.8	12.1	12.8	16.0	12.9	7.53	9.70	218	39.2	21.2	295
MAX	746	19	14	14	28	29	16	132	1710	216	270	2340
MIN	6.1	6.7	11	12	12	8.8	4.7	1.5	18	2.6	1.1	15
AC-FT	3610	640	742	785	891	791	448	596	12990	2410	1300	17540

CAL YR 1985 TOTAL 12733.5 MEAN 34.9 MAX 746 MIN 2.9 AC-FT 25260
WTR YR 1986 TOTAL 21548.5 MEAN 59.0 MAX 2340 MIN 1.1 AC-FT 42740

08084100 DEADMAN CREEK NEAR NUGENT, TX
(Reconnaissance partial-record station)

LOCATION.--Lat 32°40'36", long 99°37'00", Jones County, Hydrologic Unit 12060102, at low-water crossing on county road, 3.2 mi east of Nugent, and 4.4 mi upstream from Clear Fork Brazos River.

DRAINAGE AREA.--168 mi .

PERIOD OF RECORD.--Periodic discharge measurements: October 1967 to current year. Chemical and biochemical analyses: October 1967 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3
OCT 24...	1050	12	1440	7.50	20.0	8.6	100	1.3	250	150
DEC 05...	1030	17	1580	8.00	9.0	12.6	--	3.3	270	190
FEB 06...	0940	26	1830	7.40	12.0	8.2	81	18	270	150
APR 30...	1000	11	1920	7.80	22.0	8.0	98	6.6	280	120
JUN 19...	0940	36	1450	7.40	26.0	8.2	107	3.6	280	160
AUG 21...	0930	3.2	1540	7.70	26.5	7.9	104	4.0	270	130

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 24...	57	27	200	6	16	108	180	260	1.0
DEC 05...	53	33	200	5	16	74	270	240	0.9
FEB 06...	54	34	250	7	20	123	330	260	1.1
APR 30...	61	30	260	7	18	153	250	330	1.8
JUN 19...	60	31	170	5	14	122	190	250	1.2
AUG 21...	57	32	190	5	17	148	200	250	1.4

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 24...	8.0	810	11.9	0.07	12.0	0.13	1.9	2.0	7.00
DEC 05...	10	870	16.0	0.02	16.0	0.03	1.4	1.4	<0.01
FEB 06...	10	1000	6.49	0.51	7.00	1.70	2.9	4.6	13.0
APR 30...	6.6	1000	11.9	0.10	12.0	0.11	1.9	2.0	<0.01
JUN 19...	10	800	11.9	0.09	12.0	0.09	1.7	1.8	6.80
AUG 21...	7.6	840	7.21	0.09	7.30	0.08	1.7	1.8	5.50

08084500 LAKE STAMFORD NEAR HASKELL, TX

LOCATION.--Lat 33°04'44", long 99°34'52", Haskell County, Hydrologic Unit 12060103, on left bank at intake structure of West Texas Utilities Co. steam powerplant at Lake Stamford on Paint Creek, 1.0 mi upstream from dam, 1.7 mi upstream from California Creek, 10 mi southeast of Haskell, and 21.8 mi upstream from mouth.

DRAINAGE AREA.--368 mi².

PERIOD OF RECORD.--July 1953 to September 1986 (discontinued).

REVISED RECORDS.--WDR TX-77-2: Drainage area.

GAGE.--Nonrecording gage read once daily. Datum of gage is 2.77 ft above National Geodetic Vertical Datum of 1929 (levels by Freese and Nichols, Inc., Consulting Engineers).

REMARKS.--The lake is formed by a rolled earthfill dam 3,600 ft long. The dam was completed in March 1953, and deliberate impoundment began in June 1953. The right spillway is an uncontrolled natural channel located near the right end of dam. The left spillway is an uncontrolled channel excavated through natural ground, 169 ft wide, located 900 ft to left of left end of dam. The service outlet is a controlled 24-inch-diameter concrete pipe that is used for low-flow releases. The capacity table is based on sedimentation survey of 1966. The gage-height record was furnished by West Texas Utilities Co. from their powerplant 1.0 mi upstream from dam. Water is diverted for municipal supply for the cities of Stamford and Hamlin. Figures given herein represent total contents. Data regarding dam and lake are given in the following table:

	Gage height (feet)	Capacity (acre-feet)
Top of dam	1,434.0	-
Crest of spillway	1,423.0	110,400
Crest of spillway	1,414.0	53,070
Lowest gated outlet (invert)	1,380.0	358

COOPERATION.--The capacity table was provided by the Soil Conservation Service. Diversions were provided by the city of Stamford.

EXTREMES (at 0800) FOR PERIOD OF RECORD.--Maximum contents, 103,700 acre-ft Aug. 5, 1978 (gage height, 1,422.2 ft); minimum since first appreciable storage in June 1954, 14,060 acre-ft Jan. 29-31, 1957 (gage height, 1,400.2 ft).

EXTREMES (at 0800) FOR CURRENT YEAR.--Maximum contents, 50,760 acre-ft July 8-11, 15 (gage height, 1,413.5 ft); minimum, 41,100 acre-ft Apr. 15-19 (gage height, 1,411.2 ft).

Capacity table (gage height, in feet, and total contents, in acre-feet)

1,410.0	36,660	1,414.0	53,070
1,412.0	44,280		

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47220	46370	45950	45110	43880	43070	41490	45110	44280	44700	47220	45950
2	46790	46370	45950	44700	43880	43070	41490	44700	44280	45110	47220	45950
3	47220	46370	45950	44280	43880	43070	41880	45110	44280	46790	47220	45950
4	46790	46370	45110	44280	43880	43070	41880	44700	44700	48090	47220	45950
5	46790	46370	45110	44280	43880	43470	41880	44700	45530	48970	46790	45530
6	46790	45950	45110	44280	43880	43070	41880	44700	45530	50310	46370	46790
7	46790	45950	45110	44280	43880	43070	41880	45110	45950	50310	46370	46370
8	46790	45950	45110	44280	43880	43070	41490	45110	45950	50760	46370	47650
9	46790	45950	45110	44280	43880	43070	41490	45110	45950	50760	46370	45530
10	46370	45950	45110	44280	43880	42670	41490	45110	45950	50760	46370	45530
11	46790	45950	45110	44280	43880	42670	41490	45110	45950	50760	46790	45530
12	47220	45530	45110	44280	43880	43070	41490	45110	45950	50310	46790	45530
13	46790	45530	45110	44280	43880	43070	41490	44700	45950	50310	46790	45530
14	46790	45530	45110	44280	43880	42670	41490	45110	45950	50310	46790	45530
15	46790	45950	45110	44280	43880	43070	41100	45110	45950	50760	46370	45110
16	46370	45950	45110	44280	43880	42670	41100	45110	45530	49860	46370	45110
17	46790	45530	45110	44280	43880	42670	41100	44700	45530	48970	46370	45110
18	46790	45530	44700	44280	43880	42670	41100	44700	45530	49410	46370	45110
19	46790	45530	44700	44280	43880	42670	41100	44700	45950	49410	46370	45110
20	46790	45530	45110	44280	43880	42670	44280	44700	45950	48970	46370	45110
21	46790	45530	45110	44280	43880	42670	44280	44700	45530	48970	45950	45110
22	46790	45530	45110	44280	43880	42670	45530	44280	45530	48970	45950	45110
23	46790	45530	45110	44280	43880	42670	45110	43880	45530	48090	45950	44700
24	46790	45530	45110	44280	43880	42670	45110	44280	45530	48090	45950	44700
25	46790	45530	45110	44280	43880	42670	45110	43880	45530	48090	45950	45110
26	46730	45530	45110	43880	43070	41880	45110	43880	45530	48090	45950	44700
27	46790	45950	45110	43800	43070	42270	45110	43880	45110	48090	45950	44700
28	46790	45950	45110	43880	43070	42270	45110	43880	45110	48090	45950	44700
29	46790	45950	45110	43880	---	41880	44700	43880	45110	47650	45950	44700
30	46370	45950	45110	43880	---	41490	45110	44280	45110	47650	45950	44280
31	46370	---	45110	43880	---	41490	---	44280	---	47650	45950	---
MAX	47220	46370	45950	45110	43880	43470	45530	45110	45950	50760	47220	47650
MIN	46370	45530	44700	43880	43070	41490	41100	43880	44280	44700	45950	44280
(†)	1412.5	1412.4	1412.2	1411.9	1411.7	1411.3	1412.2	1412.0	1412.2	1412.8	1412.4	1412.0
(‡)	-850	-420	-840	-1230	-810	-1580	+3620	-830	+830	+2540	-1700	-1670
(††)	135	120	122	126	108	142	159	183	180	237	233	159

CAL YR 1985 MAX 66320 MIN 33910 (‡) +12830 (††) 2005
WTR YR 1986 MAX 50760 MIN 41100 (‡) -2940 (††) 1904

(†) Elevation, in feet, at end of month.
(‡) Change in contents, in acre-feet.
(††) Diversions, in acre-feet, for municipal supply for the cities of Stamford and Hamlin.

08084800 CALIFORNIA CREEK NEAR STAMFORD, TX

LOCATION.--Lat 32°55'51", long 99°38'32", Jones County, Hydrologic Unit 12060103, near right bank at downstream side of bridge on Farm Road 142, 9 mi east of Stamford, and 19.4 mi upstream from Paint Creek.

DRAINAGE AREA.--478 mi².

PERIOD OF RECORD.--October 1962 to current year.
Water-quality records.--Specific conductance: October 1962 to September 1979. Water temperature: October 1962 to September 1979.

REVISED RECORDS.--WSP 2122: 1965. WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 1,470 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. There are three small diversions upstream from station.

AVERAGE DISCHARGE.--24 years, 33.3 ft³/s (0.95 in/yr), 24,130 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,000 ft³/s Aug. 4, 1978 (gage height, 31.00 ft, from floodmark), from rating curve extended above 21.0 ft on basis of field discharge estimates of peak flows; no flow at times. Maximum stage since at least 1897, that of Aug. 4, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 10, 1962, reached a stage of 29.6 ft, from floodmark; flood of July 1961 (stage unknown) was third highest. Other large floods are reported to have occurred in June 1909, June 24, 1915, and May 1957; flood of September 1962 reached a stage of 28.1 ft, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*).

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 31	1530	659	14.10	June 5	0830	493	12.86
June 2	2400	1,160	17.13	July 3	1430	*1,850	*20.41

Minimum, 0.11 ft³/s Aug. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	1.1	2.9	2.2	3.5	2.0	2.0	1.6	290	1.5	.18	21
2	20	1.1	2.7	2.4	2.5	1.9	4.9	1.4	208	8.3	.18	19
3	17	1.1	2.6	2.4	3.6	2.0	32	1.2	307	830	.18	185
4	6.8	1.3	2.6	2.4	4.5	1.9	8.5	1.2	62	298	.18	102
5	3.4	1.4	2.9	2.4	5.4	2.1	3.2	1.0	297	72	.15	93
6	2.4	1.3	3.1	2.3	7.0	2.2	2.4	.89	119	30	.14	290
7	1.6	1.2	3.0	1.9	6.8	2.1	2.0	.66	87	17	.14	285
8	1.2	1.2	2.7	2.1	5.4	2.2	1.8	.60	101	10	6.4	174
9	1.0	1.4	2.5	2.1	5.3	2.4	1.7	18	83	6.4	.70	76
10	1.3	1.5	2.3	1.9	5.3	2.3	1.7	52	52	4.5	.12	51
11	1.2	1.6	2.2	2.0	4.8	2.5	1.7	12	55	3.4	.18	38
12	1.2	1.7	2.2	2.1	3.9	2.5	1.7	2.9	31	2.8	.27	28
13	1.3	1.8	2.3	2.0	3.4	3.3	1.7	1.3	21	2.3	.26	24
14	6.2	2.1	2.2	2.2	3.1	2.6	1.5	2.7	16	2.1	.28	21
15	7.8	4.2	2.2	2.0	2.9	2.3	1.5	2.2	12	1.7	.37	18
16	2.5	2.9	2.3	2.0	3.0	2.2	1.3	1.8	14	1.5	.45	15
17	.27	2.2	2.4	2.2	2.6	2.1	1.2	1.6	22	1.4	.63	14
18	33	1.8	2.3	2.2	2.5	2.5	1.3	1.5	27	1.4	.85	12
19	14	1.7	2.3	2.2	2.4	2.6	13	1.4	15	1.1	.77	9.2
20	4.8	1.9	2.4	2.2	2.3	2.6	9.3	1.2	12	.99	1.3	7.8
21	3.4	2.2	2.4	2.3	2.5	2.5	20	.92	22	1.0	1.1	6.0
22	5.0	2.6	2.4	2.3	2.4	2.6	13	.86	14	.86	.86	5.3
23	3.1	2.7	2.4	2.3	2.3	2.4	6.6	.86	6.3	.64	1.4	4.0
24	2.2	2.7	2.3	2.2	2.2	2.3	3.8	.76	4.3	.51	1.4	4.4
25	1.8	2.6	2.3	2.3	2.2	2.2	3.2	.74	5.4	.50	1.4	3.8
26	1.6	2.7	2.3	2.3	2.2	2.1	2.7	.72	5.2	.38	5.0	3.6
27	1.6	2.8	2.4	2.4	2.2	2.2	2.3	.72	3.2	.31	6.6	3.3
28	1.6	2.9	2.4	2.3	2.2	2.2	1.9	.72	2.6	.28	22	3.3
29	1.5	3.1	2.4	2.0	---	2.1	1.7	.72	2.0	.24	19	3.8
30	1.3	3.1	2.3	2.1	---	2.1	1.5	3.3	1.6	.23	33	3.3
31	1.1	---	2.2	2.5	---	2.1	---	178	---	.23	31	---
TOTAL	160.77	61.9	75.9	68.2	98.6	71.1	151.1	295.47	1897.6	1301.57	136.50	1523.8
MEAN	5.19	2.06	2.45	2.20	3.52	2.29	5.04	9.53	63.3	42.0	4.40	50.8
MAX	33	4.2	3.1	2.5	7.0	3.3	32	178	307	830	33	290
MIN	.27	1.1	2.2	1.9	2.2	1.9	1.2	.60	1.6	.23	.12	3.3
CFSM	.01	.00	.01	.00	.01	.00	.01	.02	.13	.09	.01	.11
IN.	.01	.00	.01	.01	.01	.01	.01	.02	.15	.10	.01	.12
AC-FT	319	123	151	135	196	141	300	586	3760	2580	271	3020

CAL YR 1985 TOTAL 21795.87 MEAN 59.7 MAX 1700 MIN .27 CFSM .12 IN. 1.70 AC-FT 43230
WTR YR 1986 TOTAL 5842.51 MEAN 16.0 MAX 830 MIN .12 CFSM .03 IN. .45 AC-FT 11590

08085500 CLEAR FORK BRAZOS RIVER AT FORT GRIFFIN, TX

LOCATION.--Lat 32°56'04", long 99°13'27", Shackelford County, Hydrologic Unit 12060104, on right bank just downstream from pier of bridge on old Fort Griffin-Throckmorton Road, 0.4 mi northeast of Fort Griffin, 1.0 mi upstream from bridge on U.S. Highway 283, 1.7 mi upstream from Mill Creek, and 74.6 mi upstream from mouth.

DRAINAGE AREA.--3,988 mi^2.

PERIOD OF RECORD.--December 1923 to current year.

REVISED RECORDS.--WSP 1392: 1949. WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,174.09 ft above National Geodetic Vertical Datum of 1929. Prior to June 23, 1932, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Nov. 10-12. Records good except those for estimated daily discharges, which are fair. There are diversions upstream from station for irrigation, municipal supply, and for oilfield operation that materially affect low flow. Gage-height telemeter at station.

AVERAGE DISCHARGE.--62 years (water years 1925-86), 221 ft^3/s (160,100 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 149,000 ft^3/s Aug. 4, 1978 (gage height, 38.88 ft, from floodmark), from rating curve extended above 33,600 ft^3/s on basis of contracted-opening and flow-over-road measurement of peak flow; no flow at times.

Maximum stage since 1876, that of Aug. 4, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in September 1900 reached a stage of 38.0 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,900 ft^3/s and maximum (*).

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 5	1400	4,140	13.70	July 4	1430	*6,290	*18.95

Minimum discharge, 0.63 ft^3/s Aug. 25-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	34	28	28	21	23	25	97	123	36	7.0	101
2	22	32	31	30	22	21	23	21	450	38	7.1	53
3	24	33	29	31	23	20	22	15	513	426	21	233
4	24	33	27	29	25	22	22	13	1250	4620	8.2	463
5	34	32	25	30	27	22	26	14	3350	1350	5.7	456
6	31	37	24	28	30	20	52	13	2240	407	4.7	220
7	26	31	26	25	34	19	47	12	1480	255	3.7	634
8	21	30	26	24	35	18	34	11	1370	218	3.2	2440
9	20	32	28	29	40	18	28	14	664	153	2.9	1510
10	21	27	30	32	44	20	23	76	380	106	2.7	602
11	21	28	33	28	38	21	22	45	290	81	3.4	333
12	22	29	31	29	37	24	20	75	575	63	5.4	329
13	18	29	31	29	40	26	18	54	330	50	5.1	264
14	157	27	29	30	36	26	17	33	192	43	4.3	226
15	161	28	30	29	33	27	16	24	160	41	3.6	202
16	104	30	33	28	31	31	15	19	125	35	3.0	206
17	55	31	32	26	32	55	13	17	119	29	2.6	194
18	1850	30	32	27	30	49	14	15	116	26	2.0	171
19	1800	41	30	28	32	42	111	13	91	24	1.6	157
20	1120	38	30	29	30	39	73	11	87	23	1.4	132
21	257	41	31	29	28	38	56	9.1	149	23	1.1	116
22	154	41	30	28	25	37	93	8.1	193	25	.92	106
23	169	35	31	26	25	38	53	7.2	146	23	.81	103
24	113	32	30	25	24	36	37	8.9	139	19	.70	96
25	81	32	28	24	21	33	33	9.2	96	16	.69	87
26	62	31	28	23	18	32	28	8.0	72	13	.67	88
27	51	33	28	24	16	30	27	143	59	12	4.1	85
28	40	32	29	23	20	28	22	96	52	12	2.3	76
29	37	32	30	22	---	28	18	111	45	9.8	1.3	72
30	36	28	28	21	---	25	20	74	41	8.2	54	75
31	33	---	26	21	---	26	---	52	---	7.4	221	---
TOTAL	6588	969	904	835	817	894	1008	1118.5	14897	8192.4	386.19	9830
MEAN	213	32.3	29.2	26.9	29.2	28.8	33.6	36.1	497	264	12.5	328
MAX	1850	41	33	32	44	55	111	143	3350	4620	221	2440
MIN	18	27	24	21	16	18	13	7.2	41	7.4	.67	53
AC-FT	13070	1920	1790	1660	1620	1770	2000	2220	29550	16250	766	19500

CAL YR 1985 TOTAL 70924.3 MEAN 194 MAX 2770 MIN 4.7 AC-FT 140700
WTR YR 1986 TOTAL 46439.09 MEAN 127 MAX 4620 MIN .67 AC-FT 92110

08086150 NORTH FORK HUBBARD CREEK NEAR ALBANY, TX

LOCATION.--Lat 32°42'27", long 99°16'29", Shackelford County, Hydrologic Unit 12060105, at downstream side of bridge on U.S. Highway 6, 1.7 mi southeast of Albany, and 2.0 mi upstream from Salt Prong Hubbard Creek.

DRAINAGE AREA.--39.3 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1962 to current year.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,340.54 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. No diversion above station.

AVERAGE DISCHARGE.--23 years (water years 1964-86), 6.20 ft^3/s (2.14 in/yr), 4,490 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 103,000 ft^3/s Aug. 4, 1978 (gage height, 23.3 ft, from floodmarks), from rating curve extended above 1,500 ft^3/s on basis of slope-area measurement of 4,570 ft^3/s, contracted-opening measurement of 9,520 ft^3/s, and computation of flow-through-culvert, contracted-opening, and flow-over-road determination of 103,000 ft^3/s; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood information begins in 1940. Floods of June 10, 1940, and July 18, 1953, reached stages of about 21 ft, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 18	0700	576	4.83	July 3	0700	*828	*5.43
June 11	0530	702	5.14	Aug. 27	2330	186	3.64

Minimum daily discharge, 0.05 ft^3/s Aug. 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.52	.57	.46	.35	.42	.34	.31	.30	2.8	.51	.15	.27
2	.46	.60	.43	.34	.43	.34	.30	.32	2.3	.53	.13	.45
3	.42	.54	.42	.34	.56	.34	.28	.34	3.0	210	.13	.47
4	.38	.51	.42	.34	.59	.34	.27	.34	1.1	21	.13	.68
5	.37	.51	.42	.34	.51	.27	.28	.34	4.0	3.3	.13	17
6	.34	.48	.42	.34	.59	.24	.30	.34	4.4	1.3	.12	21
7	.36	.46	.42	.34	.54	.24	.30	.34	1.1	.83	.12	3.1
8	.37	.46	.42	.34	.42	.24	.30	.34	.68	.64	.12	1.1
9	.37	.45	.44	.34	.42	.27	.30	.34	.56	.52	.12	.71
10	.39	.42	.42	.34	.42	.24	.30	.31	.51	.44	.11	.59
11	.44	.42	.37	.31	.42	.27	.27	.29	106	.37	.11	.49
12	.45	.42	.35	.30	.42	.29	.27	.26	8.1	.37	.12	.42
13	.42	.42	.34	.30	.42	.29	.27	.23	2.0	.36	.12	.38
14	.44	.42	.34	.30	.38	1.9	.24	.22	1.1	.31	.11	.36
15	.46	.45	.34	.34	.37	.52	.22	.19	.81	.30	.11	.37
16	.46	.45	.34	.37	.33	.37	.22	.19	.83	.30	.11	.37
17	.46	.42	.34	.37	.30	.34	.22	.32	2.1	.27	.11	.37
18	166	.42	.34	.37	.28	.32	.23	.32	.92	.24	.11	.34
19	13	.38	.34	.37	.27	.36	.38	.30	.72	.23	.09	.34
20	2.1	.34	.34	.37	.27	.36	.51	.28	1.1	.22	.08	.34
21	1.4	.34	.34	.34	.27	.34	.46	.23	.89	.22	.07	.34
22	1.2	.36	.34	.34	.28	.34	.38	.18	.62	.23	.06	.31
23	1.0	.42	.34	.34	.32	.34	.37	.16	.59	.46	.05	.30
24	.87	.42	.34	.36	.35	.34	.37	.16	.56	.45	.05	.29
25	.81	.42	.34	.37	.37	.34	.37	.34	.56	.31	.06	.27
26	.61	.42	.34	.36	.37	.34	.37	.63	.54	.26	.06	.27
27	.61	.42	.34	.34	.36	.34	.32	1.2	.51	.24	6.3	.27
28	.61	.42	.34	.34	.34	.34	.30	.66	.51	.22	25	.27
29	.58	.46	.34	.34	---	.33	.30	.47	.51	.23	1.7	.27
30	.52	.51	.38	.32	---	.34	.30	.63	.51	.21	.43	.27
31	.48	---	.41	.35	---	.34	---	1.4	---	.18	.30	---
TOTAL	196.90	13.33	11.56	10.61	11.02	11.61	9.31	11.97	149.93	245.05	36.41	52.01
MEAN	6.35	.44	.37	.34	.39	.37	.31	.39	5.00	7.90	1.17	1.73
MAX	166	.60	.46	.37	.59	1.9	.51	1.4	106	210	25	21
MIN	.34	.34	.34	.30	.27	.24	.22	.16	.51	.18	.05	.27
CFSM	.16	.01	.01	.01	.01	.01	.01	.01	.13	.20	.03	.04
IN.	.19	.01	.01	.01	.01	.01	.01	.01	.14	.23	.03	.05
AC-FT	391	26	23	21	22	23	18	24	297	486	72	103

CAL YR 1985 TOTAL 1577.92 MEAN 4.32 MAX 166 MIN .12 CFSM .11 IN. 1.49 AC-FT 3130
WTR YR 1986 TOTAL 759.71 MEAN 2.08 MAX 210 MIN .05 CFSM .05 IN. .72 AC-FT 1510

08086150 NORTH FORK HUBBARD CREEK NEAR ALBANY, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: December 1961 to current year. Sediment analyses: January 1966 to September 1975.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1962 to current year.
WATER TEMPERATURES: November 1962 to current year.

REMARKS.--Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the Geological Survey District office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 9,750 microsiemens Sept. 28-30, 1968; minimum measured daily, 408 microsiemens Sept. 16, 1974; minimum estimated daily, 149 microsiemens Aug. 4, 1978.
WATER TEMPERATURES: Maximum daily, 36.0°C June 5, 1980; minimum daily, 0.0°C Jan. 12, 1963, Jan. 29, 1966.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 4,990 microsiemens May 24; minimum daily, 720 microsiemens Oct. 18.
WATER TEMPERATURES: Maximum daily, 32.0°C on several days during July and August; minimum daily, 5.0°C Feb. 12.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
OCT									
09...	0835	0.36	4530	21.5	1000	850	260	94	570
MAR									
04...	1225	0.32	4480	15.0	930	760	230	87	550
APR									
23...	0910	0.37	4540	19.0	950	760	240	86	570
JUN									
11...	1720	33	1030	25.0	190	120	58	11	110
JUL									
30...	0940	0.22	3590	28.0	890	700	240	70	430

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
OCT								
09...	8	3.2	189	140	1400	0.4	2.8	2600
MAR								
04...	8	3.5	176	190	1300	0.4	9.8	2500
APR								
23...	8	3.6	189	170	1400	0.3	11	2600
JUN								
11...	4	3.7	74	20	240	0.2	8.2	500
JUL								
30...	7	3.7	190	120	980	0.4	15	2000

MONTHLY AND ANNUAL MEANS AND LOADS FOR OCTOBER 1985 TO SEPTEMBER 1986

MONTH YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED SOLIDS (MG/L)	DISSOLVED SOLIDS (TONS)	DISSOLVED CHLORIDE (MG/L)	DISSOLVED CHLORIDE (TONS)	DISSOLVED SULFATE (MG/L)	DISSOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT. 1985	196.90	954	526	280	270	143	30	16	210
NOV. 1985	13.33	3960	2190	79	1200	42	120	4.4	880
DEC. 1985	11.56	4370	2410	75	1300	41	140	4.2	980
JAN. 1986	10.61	4500	2490	71	1300	39	140	4.0	1000
FEB. 1986	11.02	4490	2480	74	1300	40	140	4.1	1000
MAR. 1986	11.61	4490	2480	78	1300	42	140	4.4	1000
APR. 1986	9.31	4530	2500	63	1400	34	140	3.5	1000
MAY 1986	11.97	4460	2470	80	1300	43	140	4.5	1000
JUNE 1986	149.93	1330	734	297	380	152	42	17	290
JULY 1986	245.05	1000	553	366	280	186	32	21	220
AUG. 1986	36.41	2060	1140	112	590	58	65	6.4	450
SEPT 1986	52.01	2360	1300	183	680	95	74	10	510
TOTAL	759.71	**	**	1800	**	915	**	100	**
WTD.AVG.	2.1	1550	857	**	450	**	49	**	340

08086150 NORTH FORK HUBBARD CREEK NEAR ALBANY, TX--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
EQUIVALENT MEAN

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4700	3490	4290	4310	4600	4490	4340	4040	3330	3070	3650	2370
2	4720	3310	4300	4350	4580	4500	4380	3800	2190	3140	3630	2220
3	4760	3500	4280	4410	4540	4510	4460	4160	2050	900	3700	2430
4	4790	3690	4260	4400	4500	4520	4440	4190	2190	1150	3900	2860
5	4820	3780	4300	4410	4510	4570	4420	3630	2080	1320	3860	2400
6	4830	3660	4320	4440	4490	4460	4390	3760	1190	1570	3800	2150
7	4550	3390	4370	4470	4450	4530	4450	3840	2600	1760	3830	2270
8	4490	3580	4430	4500	4550	4570	4540	3820	2620	1920	3880	2290
9	4530	3800	4250	4530	4450	4560	4420	3840	3050	2140	3790	2300
10	4500	3970	4300	4470	4430	4440	4460	3660	2980	2170	3840	2360
11	4410	3770	4370	4450	4420	4590	4510	4180	1030	2300	3920	2440
12	4410	4050	4390	4410	4530	4540	4470	4760	1260	2520	3840	2580
13	4490	3930	4340	4460	4500	4560	4490	4820	1490	2540	3890	2660
14	4450	4030	4350	4490	4450	4530	4510	4830	1710	2630	3830	2700
15	4440	4060	4380	4450	4510	4560	4530	4810	2200	2720	3670	2760
16	4460	4100	4400	4480	4480	4520	4500	4830	2140	2880	3750	2690
17	4500	4120	4380	4440	4400	4470	4470	4760	2010	2850	3840	2600
18	720	4140	4440	4480	4450	4480	4430	4890	2440	2960	4100	3030
19	800	4170	4420	4550	4470	4530	4520	4900	2430	3020	4060	2990
20	2000	4230	4400	4500	4440	4460	4540	4900	2340	3060	3970	2950
21	2080	4300	4410	4740	4410	4500	4690	4920	2550	3150	3850	3040
22	2240	4240	4420	4650	4400	4460	4490	4950	2760	3240	4010	3100
23	2220	4210	4430	4540	4460	4450	4550	4980	2830	3210	4100	3150
24	2260	4230	4460	4530	4490	4400	4580	4990	2990	3340	4120	3180
25	2420	4310	4440	4520	4500	4420	4620	4720	2940	3470	4100	3190
26	2630	4330	4420	4570	4470	4380	4680	4700	2880	3460	4080	3260
27	2590	4310	4250	4610	4480	4390	4690	4670	2910	3500	3430	3290
28	2720	4390	4380	4630	4480	4400	4680	4650	2950	3620	1550	3300
29	2810	4360	4440	4640	---	4380	4690	4730	3010	3540	1600	3320
30	2850	4310	4420	4650	---	4370	4700	4580	3040	3590	2290	3420
31	3140	---	4410	4520	---	4390	---	4470	---	3660	2420	---
MEAN	3530	3990	4370	4500	4480	4480	4520	4480	2410	2720	3620	2780

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	16.0	12.0	10.0	---	---	20.0	25.0	24.0	28.0	---	26.0
2	---	16.0	14.0	9.0	---	---	18.0	26.0	25.0	30.0	32.0	26.0
3	---	---	---	8.0	10.0	17.0	20.0	26.0	---	25.0	32.0	27.0
4	---	14.0	14.0	10.0	9.0	18.0	24.0	24.0	26.0	30.0	30.0	24.0
5	---	14.0	12.0	10.0	8.0	18.0	---	26.0	26.0	---	---	25.0
6	---	18.0	16.0	9.0	9.0	17.0	24.0	28.0	25.0	---	29.0	27.0
7	---	18.0	16.0	10.0	8.0	17.0	25.0	28.0	26.0	32.0	28.0	26.0
8	---	---	12.0	---	10.0	16.0	26.0	26.0	28.0	30.0	30.0	26.0
9	---	---	14.0	11.0	8.0	18.0	18.0	28.0	28.0	30.0	28.0	25.0
10	---	16.0	10.0	10.0	---	18.0	---	27.0	26.0	32.0	30.0	28.0
11	---	14.0	10.0	---	9.0	16.0	18.0	26.0	26.0	28.0	28.0	27.0
12	---	16.0	12.0	12.0	5.0	18.0	28.0	26.0	29.0	30.0	28.0	---
13	---	14.0	9.0	---	9.0	18.0	24.0	24.0	28.0	28.0	30.0	27.0
14	---	18.0	---	9.0	10.0	17.0	20.0	27.0	28.0	29.0	28.0	28.0
15	---	---	10.0	12.0	15.0	18.0	22.0	26.0	---	30.0	28.0	28.0
16	---	12.0	12.0	12.0	16.0	14.0	---	24.0	28.0	31.0	---	---
17	26.0	17.0	10.0	14.0	18.0	17.0	26.0	22.0	28.0	30.0	29.0	28.0
18	27.0	12.0	9.0	12.0	16.0	16.0	24.0	26.0	26.0	28.0	30.0	26.0
19	26.0	16.0	---	12.0	15.0	17.0	28.0	24.0	29.0	28.0	32.0	27.0
20	24.0	16.0	14.0	16.0	---	---	24.0	25.0	---	32.0	30.0	28.0
21	---	18.0	12.0	14.0	14.0	18.0	22.0	24.0	30.0	---	32.0	27.0
22	26.0	14.0	14.0	---	16.0	20.0	20.0	---	28.0	30.0	28.0	28.0
23	26.0	12.0	12.0	15.0	17.0	20.0	22.0	---	30.0	31.0	28.0	26.0
24	24.0	14.0	14.0	---	16.0	18.0	20.0	24.0	28.0	30.0	30.0	29.0
25	20.0	14.0	---	14.0	18.0	20.0	24.0	24.0	---	30.0	---	28.0
26	20.0	14.0	12.0	16.0	14.0	20.0	18.0	---	28.0	32.0	28.0	28.0
27	21.0	16.0	11.0	14.0	---	---	24.0	25.0	---	32.0	26.0	---
28	19.0	---	9.0	---	15.0	21.0	22.0	26.0	28.0	30.0	23.0	27.0
29	---	16.0	10.0	---	---	22.0	24.0	24.0	---	30.0	24.0	27.0
30	17.0	12.0	---	---	---	---	22.0	22.0	30.0	---	---	25.0
31	---	---	9.0	16.0	---	22.0	---	22.0	---	30.0	24.0	---
MEAN	23.0	15.0	12.0	12.0	12.5	18.0	22.5	25.0	27.5	30.0	28.5	27.0

08086212 HUBBARD CREEK BELOW ALBANY, TX

LOCATION.--Lat 32°43'58", long 99°08'25", Shackelford County, Hydrologic Unit 12060105, on left bank 0.5 mi downstream from Salt Prong Hubbard Creek, 2.8 mi upstream from Newcomb Creek, 4.5 mi upstream from U.S. Highway 180, 9.1 mi east of Albany, 22.6 mi upstream from Hubbard Creek Reservoir, and 35.2 mi upstream from mouth.

DRAINAGE AREA.--613 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,184.99 ft above National Geodetic Vertical Datum of 1929. Prior to June 12, 1968, water-stage recorder at site 2.1 mi downstream at datum 7.63 ft lower.

REMARKS.--No estimated daily discharges. Records good.

AVERAGE DISCHARGE.--20 years, 63.7 ft³/s (1.41 in/yr), 46,150 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 330,000 ft³/s Aug. 4, 1978 (gage height, 41.41 ft, from floodmark), from rating curve extended above 110 ft³/s on basis of step-backwater method and computation of flow-through-culverts, contracted-openings, and flow-over-road determination of 330,000 ft³/s at site 4.5 mi downstream; no flow for many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 19	0730	2,100	9.81	June 6	0400	*4,520	*13.90

Minimum discharge, no flow for several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.41	2.0	.37	.39	.31	.90	.03	38	1.9	.00	.05
2	.00	.41	1.1	.49	.38	.36	.85	.03	175	2.4	.00	.08
3	.00	.41	.81	.51	.71	.47	.54	.03	421	242	1.1	.16
4	.00	.41	.67	.51	30	.51	.54	.03	128	80	.51	.32
5	.00	.38	.61	.51	21	.52	.37	.02	1120	24	.47	.50
6	.00	.26	.53	.47	13	.71	.11	.03	1690	16	.38	2.0
7	.00	.22	.45	.33	7.4	.66	.05	.08	155	11	.38	10
8	.00	.22	.41	.31	5.0	.47	.02	.08	72	7.1	.51	7.8
9	.00	.22	.43	.36	3.4	.31	.03	.04	284	5.0	.61	4.5
10	.00	.22	.41	.46	2.8	.22	.07	.03	171	4.1	.61	2.3
11	.00	.22	.41	.51	2.4	.31	.11	.03	134	3.5	.66	1.2
12	.00	.22	.41	.47	2.1	.77	.14	.06	109	2.5	.83	1.1
13	.00	.32	.48	.41	1.6	1.0	.14	.08	52	1.5	.98	1.0
14	.00	.60	.50	.41	1.1	1.2	.05	.08	33	1.2	.60	15
15	.00	.69	.51	.41	1.1	1.2	.03	.07	21	.77	.56	22
16	.00	.61	.51	.41	.98	1.2	.06	.03	22	.42	.61	9.8
17	.00	.61	.51	.41	.97	1.2	.05	.19	195	.35	.55	4.1
18	547	.61	.51	.40	.95	.88	.05	.22	145	.41	.40	3.0
19	1170	.61	.51	.41	.90	1.1	.12	.22	83	.41	.40	1.9
20	93	.68	.51	.40	.92	1.2	.11	.20	50	.48	.42	1.3
21	26	.72	.51	.26	.95	1.3	.08	.11	28	.55	.38	.97
22	12	.72	.51	.37	.86	1.7	.08	.08	20	.54	.18	.64
23	6.1	.72	.51	.41	.67	.80	.08	.05	13	.48	.22	.45
24	3.2	.72	.51	.41	.51	.41	.04	.03	9.0	.26	.31	.23
25	1.8	.72	.51	.37	.51	1.7	.01	.14	6.9	.17	.29	.22
26	1.1	.74	.47	.31	.33	3.3	.01	.13	5.7	.11	.25	.15
27	.75	4.1	.41	.40	.26	2.8	.01	.22	4.6	.02	.25	.06
28	.61	21	.41	.45	.27	2.1	.01	.22	3.8	.00	.31	.03
29	.51	9.5	.46	.31	---	1.6	.01	.18	3.0	.00	.08	.08
30	.43	4.1	.45	.37	---	1.3	.01	.18	2.1	.00	.03	.08
31	.41	---	.37	.43	---	1.1	---	.32	---	.00	.03	---
TOTAL	1862.91	51.37	17.40	12.65	101.46	32.71	4.68	3.24	5194.1	407.17	12.91	91.02
MEAN	60.1	1.71	.56	.41	3.62	1.06	.16	.10	173	13.1	.42	3.03
MAX	1170	21	2.0	.51	30	3.3	.90	.32	1690	242	1.1	22
MIN	.00	.22	.37	.26	.26	.22	.01	.02	2.1	.00	.00	.03
CFSM	.10	.00	.00	.00	.01	.00	.00	.00	.28	.02	.00	.00
IN.	.11	.00	.00	.00	.01	.00	.00	.00	.32	.02	.00	.01
AC-FT	3700	102	35	25	201	65	9.3	6.4	10300	808	26	181

CAL YR 1985 TOTAL 19414.54 MEAN 53.2 MAX 10300 MIN .00 CFSM .09 IN. 1.18 AC-FT 38510
WTR YR 1986 TOTAL 7791.62 MEAN 21.3 MAX 1690 MIN .00 CFSM .03 IN. .47 AC-FT 15450

08086212 HUBBARD CREEK BELOW ALBANY, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: October 1966 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1966 to current year.
WATER TEMPERATURES: October 1966 to current year.

INSTRUMENTATION.--Specific conductance was recorded continuously from December 1970 to March 1982.

REMARKS.-Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the Geological Survey District office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 21,200 microsiemens Feb. 15, 21, 1978; minimum measured daily, 180 microsiemens Oct. 27,1984, May 13, 1985; minimum estimated daily, 129 microsiemens Aug. 4, 1978.
WATER TEMPERATURES (1966-80, 1983-86): Maximum daily, 37.5°C July 20, 1986; minimum daily, 0.0°C Dec. 11, 1972, Jan. 10, 1973.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 4,960 microsiemens May 11; minimum daily, 260 microsiemens June 6.
WATER TEMPERATURES: Maximum daily, 37.5°C July 20; minimum daily, 2.0°C Dec. 14, Jan. 8.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
NOV									
27...	1040	0.77	1700	13.0	330	190	92	24	200
JAN									
16...	0955	0.39	2520	9.0	530	340	140	43	310
MAR									
04...	1315	0.5	3090	19.0	650	480	160	60	390
APR									
23...	1000	0.09	4060	21.0	790	640	200	70	560
JUN									
11...	1600	235	1860	29.0	380	270	98	33	190

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
NOV								
27...	5	4.2	134	74	430	0.2	4.9	910
JAN								
16...	6	4.9	185	140	650	0.3	4.2	1400
MAR								
04...	7	5.3	169	250	760	0.3	1.9	1700
APR								
23...	9	6.1	146	260	1200	0.3	3.3	2400
JUN								
11...	4	5.1	112	90	450	0.2	7.6	940

MONTHLY AND ANNUAL MEANS AND LOADS FOR OCTOBER 1985 TO SEPTEMBER 1986

MONTH YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-MHOS)	DIS-SOLVED SOLIDS (MG/L)	DIS-SOLVED SOLIDS (TONS)	DIS-SOLVED CHLORIDE (MG/L)	DIS-SOLVED CHLORIDE (TONS)	DIS-SOLVED SULFATE (MG/L)	DIS-SOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT. 1985	1862.91	854	458	2310	230	1140	48	241	180
NOV. 1985	51.37	1530	827	115	420	58	83	11	330
DEC. 1985	17.40	1760	956	45	480	23	95	4.5	380
JAN. 1986	12.65	2590	1420	48	720	25	140	4.6	550
FEB. 1986	101.46	2220	1210	331	610	167	120	32	470
MAR. 1986	32.71	3130	1720	152	880	78	160	14	660
APR. 1986	4.68	3490	1930	24	990	13	180	2.2	730
MAY 1986	3.24	4360	2440	21	1300	11	210	1.9	910
JUNE 1986	5194.1	607	326	4570	160	2260	34	480	130
JULY 1986	407.17	1020	547	602	270	299	57	63	220
AUG. 1986	12.91	2090	1140	40	570	20	110	3.9	440
SEPT 1986	91.02	1880	1020	251	510	126	100	25	400
TOTAL	7791.62	**	**	8500	**	4230	**	884	**
WTD.AVG.	21	752	404	**	200	**	42	**	160

08086212 HUBBARD CREEK BELOW ALBANY, TX--Continued

SPEC.FIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1			---	---	---	2270	1420	1020	1270	2420	2300	2370
2			---	---	---	2290	1540	1420	1490	2420	2340	2380
3			---	---	---	2340	1500	1380	1460	2400	2300	2360
4			---	---	---	2350	1440	1200	1380	2440	2360	2410
5			---	---	---	2410	1540	1460	1520	2580	2460	2530
6			---	---	---	2430	1540	1500	1530	2560	2440	2510
7			---	---	---	2470	1540	1520	1530	2640	2500	2550
8			---	---	---	2500	1620	1540	1570	2780	2480	2680
9			---	---	---	2520	1660	1580	1610	2740	2600	2670
10			---	---	---	2550	1760	1600	1700	2600	2420	2490
11			---	---	---	2590	1860	1740	1810	2460	2400	2440
12			---	---	---	2630	2020	1860	1920	2440	2360	2400
13			---	---	---	2540	2140	1900	2030	2560	2420	2480
14			---	---	---	2400	2200	1980	2090	2580	2460	2530
15			---	---	---	2370	1980	1820	1890	2580	2480	2530
16			---	---	---	2390	1840	1780	1800	2540	2500	2520
17			---	---	---	2420	1800	1740	1770	2580	2500	2540
18			1150	---	---	2480	1740	1660	1700	2580	2560	2570
19			727	---	---	2530	1920	1700	1840	2640	2540	2590
20			658	---	---	2460	1960	1880	1910	2660	2580	2640
21			729	---	---	2400	1920	1840	1880	2740	2660	2700
22			910	---	---	2420	1880	1860	1880	2760	2640	2710
23			1070	---	---	2450	1940	1880	1900	2760	2660	2710
24			1220	---	---	2440	2000	1920	1950	2780	2720	2750
25			1380	---	---	2430	2300	2020	2190	2800	2680	2750
26			1490	---	---	2400	2320	2240	2280	2840	2700	2780
27			1680	1840	1420	1720	2280	2160	2260	2880	2760	2820
28			1830	1880	1120	1430	2280	2220	2260	2860	2780	2820
29			2020	1140	621	743	2240	2220	2230	2860	2820	2850
30			2190	1000	681	846	2240	2200	2220	2860	2780	2850
31			2220	---	---	---	2300	2220	2260	2880	2800	2840
MONTH			1380	1880	621	2270	2320	1020	1840	2880	2300	2610

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2880	2800	2840	2920	2740	2820	3360	3260	3310	4340	3880	4090
2	3420	2780	2920	3000	2740	2930	3380	3300	3340	4600	3940	4240
3	3240	2640	2880	3020	2900	2990	3400	3260	3330	4480	3980	4100
4	2620	1740	2350	3020	2820	2930	3580	3300	3460	4180	4020	4080
5	2040	1640	1870	3020	2800	2990	3580	3320	3450	4260	4060	4140
6	2100	1880	1990	3040	2800	2960	3600	3360	3450	4500	3920	4180
7	2500	1960	2070	3040	2800	2970	3480	3420	3440	4400	4080	4240
8	2680	2460	2550	3020	2940	2990	3680	3460	3560	4460	4060	4150
9	2580	2460	2500	3000	2980	3000	3660	3500	3580	4280	4060	4140
10	2500	2420	2460	3140	2980	3040	3900	3460	3570	4700	4100	4300
11	2420	2180	2320	3700	2900	3150	3800	3460	3570	4960	4120	4500
12	2180	2120	2160	3580	3100	3270	4000	3560	3800	4660	4200	4360
13	2160	2100	2130	3260	3040	3190	3960	3580	3720	4440	4240	4310
14	2220	2140	2150	3220	3060	3110	4020	3620	3780	4500	4260	4370
15	2300	2240	2270	3080	3040	3060	4100	3680	3850	4480	4340	4390
16	2380	2300	2330	3060	3040	3050	3980	3640	3750	4540	4360	4420
17	2440	2340	2400	3080	2980	3050	3820	3700	3740	4500	3680	4280
18	2520	2400	2450	3360	2960	3160	3980	3720	3840	4720	4280	4410
19	2580	2460	2520	3180	3100	3140	3940	3480	3810	4780	4340	4530
20	2600	2560	2590	3200	3080	3160	4140	3740	3880	4700	4420	4500
21	2640	2540	2590	3220	3020	3190	4280	3760	4060	4520	4400	4470
22	2680	2580	2640	3200	3140	3160	4220	3800	3900	4540	4440	4500
23	2700	2640	2670	3200	3140	3170	4040	3740	3860	4820	4480	4640
24	2740	2620	2690	3260	3200	3220	3860	3760	3790	4740	4540	4610
25	2740	2640	2690	3320	3220	3270	3900	3740	3810	4560	4160	4440
26	2780	2660	2740	3200	3100	3130	3920	3780	3850	4680	3660	4490
27	2900	2740	2810	3120	3080	3100	4160	3800	3940	4500	4360	4430
28	2940	2740	2840	3160	3100	3130	4060	3820	3870	4540	4420	4470
29	---	---	---	3200	3160	3170	4240	3920	4010	4500	4340	4450
30	---	---	---	3240	3180	3210	4120	3820	3970	4420	3920	4290
31	---	---	---	3300	3240	3260	---	---	---	4340	3680	4060
MONTH	3420	1640	2480	3700	2740	3100	4280	3260	3710	4960	3660	4340

08086212 HUBBARD CREEK BELOW ALBANY, TX--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	3720	2420	3130	1240	1180	1210	---	---	---	2700	2420	2520
2	3040	881	1820	1360	1000	1250	---	---	---	2660	2420	2500
3	941	340	624	1580	340	1030	2020	841	1150	3060	2480	2690
4	901	621	729	941	801	875	1820	1480	1570	2980	2520	2740
5	981	300	675	1020	921	970	1980	1660	1750	2900	2540	2640
6	460	260	337	1080	1000	1030	2000	1680	1760	3400	2340	2820
7	580	460	522	1100	1060	1080	2040	1700	1810	2320	2180	2230
8	661	500	567	1140	1100	1120	2060	1720	1860	2240	2180	2220
9	701	460	538	1180	1140	1160	2500	1800	1980	2280	2180	2220
10	420	360	399	1240	1160	1210	2620	1840	2020	2280	2200	2250
11	2060	400	1120	1280	1220	1260	2640	1920	2170	2400	2280	2340
12	1240	841	959	1340	1260	1290	2700	2020	2240	2440	2280	2370
13	941	560	757	1400	1320	1350	2500	2060	2200	2420	2320	2380
14	961	661	817	1480	1320	1390	2480	2080	2190	2400	1860	2280
15	1300	841	1020	1540	1360	1430	2660	2080	2280	1880	1260	1460
16	961	801	860	1560	1400	1470	2500	2140	2230	1400	1280	1350
17	961	520	584	1640	1400	1490	2580	2160	2260	1440	1220	1400
18	601	400	479	1760	1420	153C	2740	2180	2430	1540	1440	1490
19	601	420	510	2000	1480	1730	2620	2260	2420	1600	1520	1560
20	641	540	583	2100	1560	1820	2820	2220	2470	1680	1580	1620
21	701	580	626	2140	1640	1850	2580	2260	2410	1720	1620	1660
22	761	641	699	2120	1580	1830	2720	2280	2440	1800	1640	1710
23	921	721	787	2100	1680	1790	2840	2300	2500	1840	1680	1760
24	1040	761	889	2000	1700	1800	2580	2340	2410	1880	1680	1800
25	981	821	890	2060	1700	1810	2500	2320	2380	1860	1720	1790
26	981	881	932	2020	1740	1850	2520	2340	2410	1920	1760	1830
27	1040	941	988	1980	1760	1820	2740	2300	2480	1920	1780	1830
28	1120	1020	1070	---	---	---	2700	2400	2580	1940	1800	1850
29	1120	1060	1100	---	---	---	2500	2340	2410	1960	1840	1900
30	1200	1120	1150	---	---	---	2700	2380	2470	2000	1840	1890
31	---	---	---	---	---	---	2600	2400	2500	---	---	---
MONTH	3720	260	872	2140	340	1420	2840	841	2200	3400	1220	2040

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	15.0	13.5	14.5	12.5	9.0	10.5	10.0	8.5	9.0
2	---	---	---	19.0	13.5	15.0	9.5	7.0	8.5	12.0	7.5	9.0
3	---	---	---	18.5	11.5	15.0	9.5	7.0	8.5	10.5	6.5	8.5
4	---	---	---	19.0	11.5	15.0	11.5	7.5	9.5	11.0	8.0	9.5
5	---	---	---	19.0	11.5	15.0	11.5	7.5	9.5	10.0	5.5	7.5
6	---	---	---	19.0	11.5	14.5	10.5	8.0	9.5	10.0	6.5	8.0
7	---	---	---	18.5	8.5	13.0	13.0	9.0	11.0	8.0	3.5	6.0
8	---	---	---	19.5	8.5	15.0	13.0	9.0	11.0	6.5	2.0	4.0
9	---	---	---	24.0	18.5	20.5	15.5	11.0	13.0	9.5	4.0	6.0
10	---	---	---	19.0	9.5	13.0	14.0	9.0	11.0	9.5	4.0	7.0
11	---	---	---	10.0	8.5	9.0	8.5	6.0	7.5	10.0	5.5	7.5
12	---	---	---	21.5	10.0	15.5	6.0	4.0	5.0	11.5	6.0	8.5
13	---	---	---	19.5	16.5	18.5	6.0	2.5	4.5	10.5	5.5	8.0
14	---	---	---	19.0	16.5	18.0	7.0	2.0	4.0	12.0	6.0	9.0
15	---	---	---	17.0	13.5	15.5	9.0	3.5	6.0	11.5	7.5	9.5
16	---	---	---	17.0	11.5	13.5	8.5	4.0	6.5	11.5	10.0	10.5
17	---	---	---	17.0	13.5	15.5	9.5	4.5	6.5	13.0	8.5	10.5
18	22.0	19.5	21.0	20.0	16.5	18.0	6.0	4.5	5.5	14.0	9.5	11.5
19	21.5	20.0	21.0	21.5	14.0	18.0	8.5	4.0	6.0	13.5	8.5	10.5
20	21.5	21.0	21.0	15.0	11.5	13.5	8.5	4.5	6.0	13.5	8.5	11.0
21	22.0	20.0	21.0	14.0	11.5	12.5	10.0	5.0	7.5	16.0	10.0	12.5
22	23.5	20.0	21.5	14.0	11.5	12.0	12.0	7.0	9.0	12.5	9.0	10.5
23	24.5	21.5	23.0	17.0	11.5	14.0	11.0	7.5	9.0	11.0	7.0	9.5
24	26.5	19.5	22.5	14.0	11.5	13.0	11.5	7.5	9.5	14.5	9.0	11.5
25	24.0	19.5	22.5	17.0	13.5	15.0	9.5	6.0	7.5	13.0	8.0	10.5
26	24.0	21.5	22.5	19.0	16.5	17.0	10.0	5.5	7.5	12.5	7.0	9.5
27	24.0	19.5	22.0	16.5	13.5	14.5	10.0	6.0	8.0	11.0	5.5	8.0
28	22.0	18.5	20.5	14.0	11.5	13.0	10.5	6.0	8.0	11.5	6.5	9.0
29	19.0	17.0	18.5	12.5	11.5	12.0	10.0	6.5	8.0	14.0	8.0	10.5
30	19.0	14.5	17.0	16.5	12.5	14.0	11.5	7.5	9.5	13.0	7.5	10.5
31	20.0	13.5	16.5	---	---	---	12.5	8.5	10.0	15.0	10.5	13.0
MONTH	26.5	13.5	21.0	24.0	8.5	15.0	15.5	2.0	8.0	16.0	2.0	9.0

08086212 HUBBARD CREEK BELOW ALBANY, TX--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	16.5	13.0	14.5	17.0	10.5	14.0	21.5	20.0	20.5	27.0	22.5	24.0
2	16.0	14.0	15.0	21.0	12.0	16.5	22.5	19.5	20.5	28.5	21.5	24.5
3	16.5	15.5	16.0	20.0	15.0	17.0	22.5	19.5	20.5	26.0	21.5	24.0
4	15.5	14.0	14.5	21.0	12.5	16.5	27.0	18.0	22.5	25.5	22.0	23.5
5	14.0	13.0	13.5	20.5	13.0	16.0	25.5	19.0	22.5	27.0	22.5	24.5
6	15.0	12.5	13.5	18.5	12.5	15.5	25.0	21.0	23.5	28.0	23.5	25.5
7	12.5	11.0	11.5	19.5	13.5	16.0	26.5	22.0	24.5	26.0	24.0	25.0
8	10.5	8.5	9.5	19.0	12.5	16.0	25.5	19.5	23.0	27.0	23.0	24.5
9	8.0	6.5	7.5	20.5	16.5	18.5	23.0	18.0	20.0	26.0	23.0	24.0
10	6.5	5.0	5.5	22.5	16.0	19.0	20.0	18.5	19.0	28.5	22.5	25.0
11	6.5	3.5	5.0	20.5	17.0	18.0	22.5	18.0	20.0	32.5	22.5	27.5
12	5.5	4.0	5.0	22.5	15.0	18.5	26.0	19.5	22.0	28.0	24.5	26.5
13	9.0	4.0	6.5	21.0	15.5	18.0	24.5	19.0	22.0	28.5	24.5	26.5
14	12.0	7.5	9.5	19.5	14.5	17.0	23.0	17.0	20.0	28.0	26.0	26.5
15	12.5	7.5	10.0	20.5	15.5	18.0	24.5	15.5	20.0	28.5	24.0	26.5
16	14.5	11.0	13.0	22.0	16.0	18.5	22.0	16.5	20.0	26.5	24.5	25.5
17	16.5	11.5	14.0	19.0	16.5	18.0	23.5	19.0	21.5	25.0	20.5	22.5
18	17.5	12.5	15.0	20.5	16.0	18.0	27.5	20.5	24.0	24.0	20.0	21.5
19	19.5	14.0	17.0	19.0	14.5	16.0	24.0	19.5	22.0	29.5	19.0	24.0
20	19.5	13.0	16.5	19.0	12.5	15.5	24.5	17.5	21.0	25.5	21.5	24.0
21	14.0	10.5	12.0	20.0	12.0	16.0	27.5	18.5	22.5	26.5	22.0	24.0
22	16.5	9.0	12.5	19.5	14.0	16.5	23.5	19.0	21.5	26.5	21.5	24.0
23	16.0	10.5	13.5	19.5	13.5	17.0	24.0	19.5	21.0	32.5	23.0	27.0
24	19.5	11.5	15.0	20.5	15.0	18.0	24.5	19.5	22.0	28.5	25.5	27.0
25	18.0	12.5	16.0	21.0	15.5	18.5	25.0	20.0	22.5	30.5	24.0	27.0
26	23.0	14.0	18.0	23.0	17.0	20.0	25.5	21.0	23.0	30.5	24.5	27.0
27	18.0	14.0	16.0	23.0	18.0	20.5	25.0	19.5	22.5	28.5	24.0	25.5
28	17.5	11.5	14.5	23.5	18.5	21.0	25.0	18.0	22.0	30.0	22.5	26.0
29	---	---	---	23.0	19.5	21.0	25.0	22.0	23.5	27.5	23.5	25.5
30	---	---	---	24.0	18.5	21.5	26.0	22.0	23.5	25.0	23.5	24.0
31	---	---	---	24.5	19.0	22.0	---	---	---	27.0	23.0	24.5
MONTH	23.0	3.5	12.5	24.5	10.5	18.0	27.5	15.5	22.0	32.5	19.0	25.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.5	23.5	24.0	31.0	27.5	29.5	---	---	---	28.0	24.5	26.0
2	24.5	23.0	24.0	35.5	28.5	30.5	---	---	---	28.0	25.0	26.0
3	25.0	24.0	24.5	29.0	24.0	27.0	31.5	24.5	27.5	30.5	25.0	27.5
4	26.5	24.0	25.0	30.0	26.0	28.0	30.0	26.0	28.0	30.0	26.0	27.5
5	26.0	23.5	25.5	31.5	28.0	29.5	31.5	27.0	29.0	27.5	26.0	26.5
6	26.0	23.5	25.0	32.0	28.0	30.0	32.5	27.5	29.5	33.0	25.0	28.5
7	28.0	25.5	26.5	33.5	28.5	30.5	31.5	28.0	29.5	27.5	24.0	26.0
8	29.0	27.5	28.0	33.5	29.0	31.0	31.5	27.5	29.5	25.5	23.5	24.5
9	29.5	27.5	28.5	33.0	29.0	31.0	31.5	28.0	30.0	27.5	23.5	25.5
10	29.5	28.0	28.5	32.5	28.0	30.5	32.0	28.0	29.5	28.5	25.5	27.0
11	29.5	27.5	28.5	30.5	28.0	29.0	36.0	27.5	31.5	32.0	26.0	28.0
12	30.0	28.0	29.0	31.0	27.0	29.0	34.0	28.5	31.0	31.0	24.0	27.5
13	32.5	28.5	30.0	30.5	26.5	28.5	32.0	28.5	30.0	28.5	24.5	26.5
14	33.0	28.0	30.0	30.5	26.5	29.0	31.0	27.5	29.0	29.5	25.5	27.0
15	33.0	28.0	30.5	31.0	27.5	29.5	31.5	28.0	29.5	29.5	26.0	27.5
16	32.5	29.0	30.5	30.5	27.0	29.0	32.0	28.0	30.0	30.5	26.5	28.5
17	29.5	26.5	27.5	31.0	27.0	29.0	35.5	28.5	31.0	30.5	26.5	28.5
18	28.5	26.0	27.0	31.5	27.5	29.5	36.5	28.5	32.5	30.0	26.5	28.5
19	28.5	27.0	27.5	36.0	27.5	31.5	35.0	29.0	32.0	30.0	26.5	28.0
20	30.5	27.5	29.0	37.5	28.5	32.5	36.5	29.5	32.5	29.5	26.0	28.0
21	32.5	28.0	30.0	35.5	28.5	31.0	34.5	29.0	31.0	29.5	26.5	28.0
22	34.0	29.0	31.5	34.5	28.0	30.5	33.0	27.5	30.0	30.0	26.5	28.0
23	34.5	29.0	32.0	31.5	28.5	30.0	32.0	27.5	29.5	29.5	26.0	27.5
24	34.0	29.5	31.5	32.0	28.0	30.0	31.0	27.0	28.5	28.5	25.5	27.0
25	33.5	29.5	31.5	32.5	28.0	30.5	29.0	26.5	27.5	28.0	26.0	26.5
26	34.0	29.0	31.5	34.0	29.0	31.0	28.5	26.0	27.0	28.0	25.0	26.5
27	33.5	29.5	31.5	33.0	29.0	31.0	30.0	26.5	27.5	29.0	25.0	27.0
28	34.0	29.5	31.5	---	---	---	27.0	24.5	26.0	28.5	25.5	26.5
29	34.0	30.0	32.0	---	---	---	27.5	23.5	25.5	27.5	25.5	26.5
30	32.0	29.0	30.5	---	---	---	27.0	23.5	25.0	27.0	25.0	26.0
31	---	---	---	---	---	---	27.5	24.0	25.0	---	---	---
MONTH	34.5	23.0	29.0	37.5	24.0	30.0	36.5	23.5	29.0	33.0	23.5	27.0

08086290 BIG SANDY CREEK ABOVE BRECKENRIDGE, TX

LOCATION.--Lat 32°38'54", long 99°00'15", Stephens County, Hydrologic Unit 12060105, on left bank 600 ft downstream from Battle Creek, 1.6 mi upstream from bridge on Farm Road 576, 9.8 mi southwest of Breckenridge, and about 14.6 mi upstream from Hubbard Creek Dam.

DRAINAGE AREA.--280 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1962 to current year. Prior to October 1975, published as "near Breckenridge."

REVISED RECORDS.--WDR TX-76-2: Drainage area at former site.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,185.83 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1975, at site 1.6 mi downstream at datum 7.41 ft lower.

REMARKS.--No estimated daily discharges. Records good.

AVERAGE DISCHARGE.--24 years (water years 1963-86), 27.4 ft^3/s (1.33 in/yr), 19,850 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 80,000 ft^3/s Oct. 13, 1981 (gage height, 28.60 ft, from floodmark), from field estimate, based on 2-section slope-area determination of peak flow; no flow at times each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--According to information from State Department of Highways and Public Transportation, the floods of May 16, 1949, July 20, 1953, and Apr. 29, 1957, each reached a stage of 24.6 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 19	1230	*3,200	*16.59	No other peak greater than base discharge.			

Minimum discharge, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.79	.17	.18	.12	.01	.02	280	.00	.00	.00
2	.00	.01	.44	.15	.25	.17	.01	.02	180	11	.00	.00
3	.00	.01	.25	.17	263	.15	.02	.01	681	87	.00	.00
4	.00	.00	.16	.14	130	.12	.03	.01	65	8.3	.01	.00
5	.00	.00	.13	.15	25	.12	.02	.02	558	.85	.08	.00
6	.00	.00	.11	.15	9.5	.12	.01	.03	524	.16	.00	.00
7	.00	.00	.09	.16	4.2	.13	.01	.02	42	.06	.00	.00
8	.00	.00	.09	.15	1.6	.15	.00	.01	7.5	.01	.00	.00
9	.00	.00	.11	.15	1.0	.16	.00	.02	131	.00	.00	.00
10	.00	.00	.09	.15	.52	.13	.00	.03	35	.00	.00	.00
11	.00	.00	.09	.19	.25	.15	.00	.02	9.6	.00	.00	.00
12	.00	.01	.09	.19	.18	35	.01	.02	1.2	.00	.00	.00
13	.00	.03	.10	.18	.13	5.2	.01	.01	1.0	.00	.00	15
14	.00	.03	.11	.20	.13	1.1	.00	.01	.76	.00	.00	205
15	.00	.03	.11	.22	.09	.42	.00	.02	3.4	.00	.00	1.2
16	.00	.03	.11	.22	.09	.32	.00	.02	17	.00	.00	.00
17	.00	.04	.11	.21	.09	.32	.00	.17	215	.00	.00	.00
18	151	.05	.12	.21	.11	.68	.10	.03	223	.00	.00	.00
19	1770	.05	.11	.21	.09	4.1	.09	.02	59	.00	.00	.00
20	143	.14	.11	.20	.07	1.1	.09	.02	13	.00	.00	.00
21	20	1.6	.11	.20	.07	.39	.04	.02	1.8	.00	.00	.00
22	2.5	1.8	.12	.19	.06	.19	.03	.02	.69	.00	.00	.00
23	.36	1.4	.17	.16	.07	.09	.02	.02	.26	.00	.00	.00
24	.12	1.5	.18	.18	.07	.05	.01	.02	.09	.00	.00	.00
25	.05	2.0	.18	.21	.10	.04	.01	.04	.04	.00	.00	.00
26	.02	136	.15	.21	.11	.03	.01	.10	.02	.00	.00	.00
27	.00	218	.17	.18	.12	.02	.01	.13	.01	.00	.00	.00
28	.00	33	.16	.15	.10	.02	.01	.03	.01	.00	.00	.00
29	.00	7.6	.15	.15	---	.02	.02	.02	.00	.00	.00	.00
30	.00	2.2	.15	.15	---	.02	.02	.05	.00	.00	.00	.00
31	.00	---	.16	.15	---	.01	---	238	---	.00	.00	---
TOTAL	2087.05	405.53	5.02	5.50	437.18	50.64	.59	238.98	3049.38	107.38	.09	221.20
MEAN	67.3	13.5	.16	.18	15.6	1.63	.02	7.71	102	3.46	.00	7.37
MAX	1770	218	.79	.22	263	35	.10	238	681	87	.08	205
MIN	.00	.00	.09	.14	.06	.01	.00	.01	.00	.00	.00	.00
CFSM	.24	.05	.00	.00	.06	.01	.00	.03	.36	.01	.00	.03
IN.	.28	.05	.00	.00	.06	.01	.00	.03	.41	.01	.00	.03
AC-FT	4140	804	10.0	11	867	100	1.2	474	6050	213	.2	439

CAL YR 1985 TOTAL 10348.22 MEAN 28.4 MAX 2740 MIN .00 CFSM .10 IN. 1.37 AC-FT 20530
WTR YR 1986 TOTAL 6608.54 MEAN 18.1 MAX 1770 MIN .00 CFSM .06 IN. .88 AC-FT 13110

08086290 BIG SANDY CREEK ABOVE BRECKENRIDGE, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: February 1962 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1962 to current year.
WATER TEMPERATURES: February 1962 to August 1979, March 1982 to current year.

INSTRUMENTATION.--Specific conductance was recorded continuously from December 1970 to March 1982.

REMARKS.--When maximum and minimum specific conductance values are not shown, mean value is estimated. Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the Geological Survey District office upon request. Prior to November 1975, this station was formerly published as 08086300 Big Sandy Creek near Breckenridge.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 28,700 microsiemens Apr. 5, 10, 1976; minimum daily, 59 microsiemens Nov. 21, 1963.
WATER TEMPERATURES: Maximum daily, 36.5°C May 29, 1985; minimum daily, 0.0 Jan. 9, 10, 1977 and Dec. 2, 3, 1985.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 13,100 microsiemens Apr. 20; minimum daily, 150 microsiemens June 6.
WATER TEMPERATURES: Maximum daily, 34.0°C June 23; minimum daily, 0.0°C Dec. 2, 3.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
NOV									
27...	1320	173	312	15.0	110	9	39	4.0	11
JAN									
16...	1300	0.2	9100	11.5	1600	1400	490	90	1400
MAR									
04...	1710	0.12	9670	19.0	1700	1500	480	120	1500
APR									
23...	1305	0.02	8750	22.0	1500	1400	440	100	1300
JUN									
11...	1245	16	366	27.5	100	24	35	4.1	25

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
NOV								
27...	0.5	7.6	105	12	16	0.2	8.4	160
JAN								
16...	16	4.9	213	530	2900	0.2	3.3	5500
MAR								
04...	16	6.0	169	540	3000	0.2	2.0	5700
APR								
23...	15	6.9	128	550	2760	0.2	2.8	5200
JUN								
11...	1	4.8	80	19	43	0.2	6.9	190

MONTHLY AND ANNUAL MEANS AND LOADS FOR OCTOBER 1985 TO SEPTEMBER 1986

MONTH	YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED SOLIDS (MG/L)	DISSOLVED SOLIDS (TONS)	DISSOLVED CHLORIDE (MG/L)	DISSOLVED CHLORIDE (TONS)	DISSOLVED SULFATE (MG/L)	DISSOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT.	1985	2087.05	416	228	1280	120	693	18	100	74
NOV.	1985	405.53	553	301	330	160	178	24	26	98
DEC.	1985	5.02	4550	2600	35	1400	19	200	2.7	810
JAN.	1986	5.50	9780	5800	86	3200	47	440	6.5	1800
FEB.	1986	437.18	1340	737	870	400	470	58	68	240
MAR.	1986	50.64	3560	2000	273	1100	148	150	21	630
APR.	1986	0.59	9820	5830	9.3	3200	5.1	440	0.7	1800
MAY	1986	238.98	1090	600	387	320	209	47	30	190
JUNE	1986	3049.38	360	196	1610	110	870	15	127	64
JULY	1986	107.38	994	544	158	290	85	43	12	180
AUG.	1986	0.09	3850	2170	0.5	1200	0.3	170	0.04	690
SEPT	1986	221.20	1380	755	451	410	244	59	35	240
TOTAL		6608.54	**	**	5500	**	2970	**	430	**
WTD.AVG.		18	562	308	**	170	**	24	**	100

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	1300	960	1160	8540	8220	8370
2	---	---	---	---	---	2080	1540	1280	1400	8600	8200	8430
3	---	---	---	---	---	2240	1760	1520	1620	8640	8300	8510
4	---	---	---	---	---	---	2000	1820	1920	8720	8500	8590
5	---	---	---	---	---	---	2540	2000	2310	9360	8420	8860
6	---	---	---	---	---	---	3220	2540	2930	9560	9120	9290
7	---	---	---	---	---	---	3480	3300	3380	9660	9280	9360
8	---	---	---	---	---	---	4080	3420	3720	9860	9500	9670
9	---	---	---	---	---	---	4240	3980	4060	10000	9140	9700
10	---	---	---	---	---	---	4780	4280	4610	9920	9200	9610
11	---	---	---	---	---	---	5120	4680	4940	9680	9080	9490
12	---	---	---	---	---	3170	5180	5060	5130	9760	9240	9490
13	---	---	---	---	---	3010	5180	4960	5090	9980	9400	9600
14	---	---	---	---	---	3060	5100	4880	5000	10100	9040	9670
15	---	---	---	---	---	3150	5180	4860	5060	9860	9320	9610
16	---	---	---	---	---	3220	5260	5040	5150	9600	8980	9300
17	---	---	---	---	---	3200	5400	5100	5280	9460	9080	9260
18	12700	860	2560	---	---	3160	5640	5340	5480	9560	9180	9390
19	---	---	245	---	---	3190	5860	5560	5690	10200	9420	9730
20	---	---	275	---	---	3030	6160	5800	5980	10200	9780	10000
21	---	---	325	---	---	2670	6300	6020	6210	10000	9680	9880
22	---	---	510	---	---	2630	6600	6240	6420	10000	9800	9960
23	---	---	763	---	---	2790	7220	6540	6890	10700	9980	10400
24	---	---	894	---	---	2710	7260	6980	7130	10700	10000	10500
25	---	---	1250	---	---	2630	7600	7160	7300	10700	10300	10500
26	---	---	1560	680	560	587	8260	7460	7850	10700	10400	10500
27	---	---	---	600	300	483	8420	8060	8180	11100	10600	10800
28	---	---	---	380	240	296	8380	7940	8170	---	---	11100
29	---	---	---	660	380	516	8380	7840	8080	---	---	11000
30	---	---	---	940	660	813	8300	7920	8130	---	---	11300
31	---	---	---	---	---	---	8260	8040	8200	---	---	11500
MONTH	12700	860	931	940	240	2320	8420	960	5240	11100	8200	9790

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1			11400			8220	---	---	8090			9890
2			10900			8470	---	---	9120			10000
3			1540			8720	---	---	10100			10200
4			785			8960	---	---	10800			10500
5			945			9130	---	---	11400			9970
6			1680			9390	---	---	11700			9490
7			2720			9600	---	---	11900			9560
8			3210			9840	---	---	---			9720
9			3650			10100	---	---	---			9600
10			4440			10300	---	---	---			9440
11			4890			10500	---	---	---			9570
12			5260			3390	---	---	10400			9690
13			5500			3160	---	---	10000			9800
14			6240			3290	---	---	---			9920
15			6330			3440	---	---	---			9870
16			6520			3980	---	---	---			9900
17			6600			4110	---	---	---			9280
18			6410			4000	---	---	8680			9370
19			6480			3420	---	---	7770			9520
20			6600			2990	13100	11500	12200			9640
21			6690			3160	12000	10100	11000			9800
22			6780			3390	10100	9040	9430			9880
23			6700			3550	9120	8640	8750			9960
24			6950			3800	---	---	8920			10000
25			7230			4010	480	---	9160			9810
26			7480			4520	480	---	9290			9420
27			7740			5090	480	---	9440			9160
28			8000			5570	480	---	9700			9260
29						5980	480	---	9880			9440
30						6960	---	---	9960			9390
31						7430	---	---	---			1060
MONTH			5700			6080	13100	8640	9900			9420

08086290 BIG SANDY CREEK ABOVE BRECKENRIDGE, TX--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	935			---	---	---	---	---	---	---
2	---	---	1240			2220	---	---	---	---	---	---
3	---	---	165			835	---	---	---	---	---	---
4	---	---	540			975	---	---	6290	---	---	---
5	---	---	175			1240	4280	1940	3550	---	---	---
6	---	---	150			2250	---	---	---	---	---	---
7	---	---	520			2970	---	---	---	---	---	---
8	---	---	965			3640	---	---	---	---	---	---
9	---	---	210			---	---	---	---	---	---	---
10	---	---	350			---	---	---	---	---	---	---
11	460	380	448			---	---	---	---	---	---	---
12	620	440	551			---	---	---	---	---	---	---
13	1840	640	1100			---	---	---	---	---	---	3360
14	920	760	821			---	---	---	---	1300	1060	1230
15	1140	480	798			---	---	---	---	1420	1300	1350
16	1280	280	657			---	---	---	---	---	---	---
17	660	220	293			---	---	---	---	---	---	---
18	900	240	428			---	---	---	---	---	---	---
19	580	440	526			---	---	---	---	---	---	---
20	660	540	597			---	---	---	---	---	---	---
21	780	640	704			---	---	---	---	---	---	---
22	880	760	823			---	---	---	---	---	---	---
23	920	860	883			---	---	---	---	---	---	---
24	920	860	898			---	---	---	---	---	---	---
25	---	---	1040			---	---	---	---	---	---	---
26	---	---	1290			---	---	---	---	---	---	---
27	---	---	1980			---	---	---	---	---	---	---
28	---	---	2660			---	---	---	---	---	---	---
29	---	---	---			---	---	---	---	---	---	---
30	---	---	---			---	---	---	---	---	---	---
31	---	---	---			---	---	---	---	---	---	---
MONTH	1840	220	777			2020	4280	1940	4920	1420	1060	1980

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	10.5	1.5	6.0	8.5	6.0	7.5
2	---	---	---	17.5	12.0	14.5	3.0	.0	.5	11.0	5.0	8.0
3	---	---	---	16.5	11.5	13.5	12.5	.0	4.5	9.0	5.5	8.0
4	---	---	---	---	---	---	16.0	2.5	9.0	9.0	6.0	8.0
5	---	---	---	---	---	---	11.5	6.5	8.5	8.5	3.5	6.0
6	---	---	---	---	---	---	9.5	6.5	8.0	9.5	5.5	7.5
7	---	---	---	---	---	---	13.0	8.0	9.5	7.5	3.5	5.0
8	---	---	---	---	---	---	11.5	7.0	9.0	5.0	2.0	3.5
9	---	---	---	---	---	---	14.0	10.5	12.0	8.5	2.5	5.5
10	---	---	---	---	---	---	13.5	6.5	10.0	8.5	5.5	7.0
11	---	---	---	---	---	---	6.5	4.0	5.0	8.5	4.5	6.5
12	---	---	---	16.5	11.5	14.0	3.5	1.0	2.5	9.5	5.0	7.5
13	---	---	---	19.0	16.0	17.5	6.5	1.0	3.5	9.0	3.5	6.0
14	---	---	---	19.0	16.0	18.0	7.0	4.0	5.0	12.0	5.0	8.0
15	---	---	---	15.5	13.0	14.0	7.5	4.0	5.5	10.5	7.0	8.5
16	---	---	---	13.5	11.0	12.5	8.0	4.5	6.0	12.0	9.5	11.0
17	---	---	20.0	16.0	13.0	14.5	9.0	4.5	---	12.5	9.0	11.0
18	21.0	18.5	20.0	18.5	16.0	17.0	6.0	3.0	4.5	13.5	8.5	11.0
19	20.0	18.0	19.5	18.5	14.0	17.0	9.0	4.0	5.5	13.5	7.0	10.0
20	20.0	19.5	19.5	13.5	11.0	12.0	8.5	5.0	6.0	12.5	7.5	10.0
21	20.5	19.0	19.5	12.0	11.0	11.0	8.5	5.0	6.5	14.5	10.5	12.0
22	21.5	19.0	20.0	11.0	10.0	10.5	12.0	5.5	8.0	11.0	7.5	9.5
23	23.5	19.5	21.0	14.5	11.0	12.5	10.0	6.0	8.0	10.5	5.0	8.0
24	23.5	18.5	21.0	13.0	12.0	12.5	10.0	6.0	7.5	13.5	8.0	10.5
25	24.0	20.0	21.5	16.0	13.0	14.5	6.5	3.5	5.0	11.0	8.0	9.5
26	24.5	20.0	21.5	17.0	16.0	16.5	9.0	1.5	5.5	9.5	6.0	7.5
27	---	---	---	17.0	15.5	16.0	7.5	5.0	6.0	8.0	4.0	6.0
28	---	---	---	13.0	11.0	12.0	9.0	5.0	6.5	---	---	---
29	---	---	---	12.0	10.5	11.0	10.0	4.5	7.0	---	---	---
30	---	---	---	20.0	11.5	14.0	11.5	5.5	8.5	11.5	5.5	9.0
31	---	---	---	---	---	---	10.5	7.5	9.0	15.0	10.5	12.5
MONTH	24.5	18.0	20.5	20.0	10.0	14.0	16.0	.0	6.5	15.0	2.0	8.5

08086290 BIG SANDY CREEK ABOVE BRECKENRIDGE, TX--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	16.5	13.5	14.5	---	---	---	21.0	18.5	19.5	25.0	22.5	23.5
2	16.0	14.5	15.0	---	---	---	19.5	18.0	19.0	25.0	21.5	23.5
3	15.5	13.0	14.5	---	---	---	19.0	18.0	18.5	25.5	21.0	23.0
4	14.5	14.0	14.0	---	---	---	23.0	17.0	20.0	25.5	21.5	23.5
5	14.0	13.5	14.0	---	---	---	23.5	18.5	21.0	26.0	23.0	24.5
6	13.5	12.5	13.0	---	---	---	24.0	20.0	22.0	28.0	23.5	25.5
7	13.0	11.5	12.0	---	---	---	25.0	21.0	23.0	25.5	24.0	24.5
8	---	---	---	---	---	---	---	---	---	25.5	23.0	24.0
9	---	---	---	---	---	---	---	---	---	25.0	22.0	23.5
10	---	---	---	---	---	---	---	---	---	25.5	21.5	23.5
11	---	---	---	---	---	---	---	---	---	27.5	21.5	25.0
12	---	---	---	---	---	---	22.0	18.0	19.5	28.0	24.0	26.0
13	---	---	---	---	---	---	23.0	18.0	20.5	28.5	24.5	26.5
14	---	---	---	---	---	---	---	---	---	27.0	25.5	26.0
15	---	---	---	---	---	---	---	---	---	28.5	24.0	26.5
16	---	---	---	---	---	---	---	---	---	26.5	25.0	25.5
17	---	---	---	---	---	---	---	---	---	25.0	19.0	21.5
18	---	---	---	---	---	---	25.0	19.5	22.0	20.5	18.0	19.0
19	---	---	---	---	---	---	21.5	18.0	20.0	25.0	17.5	21.5
20	---	---	---	---	---	---	23.0	16.0	19.5	26.5	21.0	23.5
21	---	---	---	---	---	---	23.0	17.5	20.5	27.0	22.5	24.5
22	---	---	---	---	---	---	23.5	18.5	21.0	27.0	23.0	25.0
23	---	---	---	---	---	---	23.5	19.5	21.5	29.0	24.0	26.5
24	---	---	---	---	---	---	25.0	20.5	22.5	28.0	25.5	26.5
25	---	---	---	---	---	---	25.5	21.5	23.5	27.0	24.0	25.5
26	---	---	---	---	---	---	25.5	22.0	24.0	26.0	24.0	25.0
27	---	---	---	---	---	---	25.0	22.0	23.5	25.0	22.0	23.5
28	---	---	---	21.5	17.0	19.5	24.5	19.5	22.5	26.5	21.0	24.0
29	---	---	---	20.0	18.0	19.0	25.0	22.5	23.5	27.5	22.5	25.0
30	---	---	---	22.0	17.5	19.5	25.0	23.0	24.0	25.5	22.5	23.5
31	---	---	---	23.0	19.0	21.0	---	---	---	23.0	22.0	22.5
MONTH	16.5	11.5	14.0	23.0	17.0	20.0	25.5	16.0	21.5	29.0	17.5	24.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	25.5	21.5	23.5				---	---	---	---	---	---
2	25.5	25.0	25.5				---	---	---	---	---	---
3	26.0	25.5	25.5				---	---	---	---	---	---
4	26.5	25.5	26.0				31.5	21.5	25.5	---	---	---
5	26.5	26.0	26.0				33.0	24.0	28.5	---	---	---
6	26.5	25.5	26.0				---	---	---	---	---	---
7	27.0	26.0	26.5				---	---	---	---	---	---
8	28.0	27.0	27.5				---	---	---	---	---	---
9	28.0	27.5	27.5				---	---	---	---	---	---
10	28.0	27.5	28.0				---	---	---	---	---	---
11	29.0	24.0	27.5				---	---	---	---	---	---
12	30.5	24.0	27.0				---	---	---	---	---	---
13	32.0	25.0	28.0				---	---	---	32.0	18.5	23.5
14	31.5	26.0	28.5				---	---	---	25.0	22.5	23.5
15	30.0	25.0	28.0				---	---	---	27.5	24.0	25.5
16	31.5	26.5	28.0				---	---	---	---	---	---
17	25.5	24.0	24.5				---	---	---	---	---	---
18	26.5	24.5	25.5				---	---	---	---	---	---
19	27.5	25.0	26.5				---	---	---	---	---	---
20	30.0	26.0	27.5				---	---	---	---	---	---
21	31.0	26.0	28.0				---	---	---	---	---	---
22	33.0	26.5	29.5				---	---	---	---	---	---
23	34.0	26.5	29.5				---	---	---	---	---	---
24	32.5	25.5	28.5				---	---	---	---	---	---
25	32.5	24.5	28.5				---	---	---	---	---	---
26	32.5	24.5	28.5				---	---	---	---	---	---
27	32.0	25.5	29.0				---	---	---	---	---	---
28	32.0	26.5	29.5				---	---	---	---	---	---
29	---	---	---				---	---	---	---	---	---
30	---	---	---				---	---	---	---	---	---
31	---	---	---				---	---	---	---	---	---
MONTH	34.0	21.5	27.5				33.0	21.5	27.0	32.0	18.5	24.0

08086400 HUBBARD CREEK RESERVOIR NEAR BRECKENRIDGE, TX

LOCATION.--Lat 32°49'53", long 98°58'03", Stephens County, Hydrologic Unit 12060105, on left bank just upstream from dam on Hubbard Creek, 1.4 mi upstream from U.S. Highway 183, 6.5 mi northwest of Breckenridge, and 12.6 mi upstream from mouth.

DRAINAGE AREA.--1,085 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1962 to current year.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--The reservoir is formed by a rolled earthfill dam 5,630 ft long. There are two additional levees, the north and south, making an overall length of 3.5 mi. Storage began September 1962 and the dam was completed in December 1962. The emergency spillway is a 2,000-foot-wide cut through natural ground near the left end of dam. The service spillway is a partially controlled morning-glory type, with 12 lift gates designed to discharge 30,000 ft³/s with a 17.5-foot head through a 22.0-foot-diameter concrete conduit. The dam is the property of the West Central Texas Municipal Water District. Figures given herein represent total contents. Data regarding the dam and reservoir are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	1,208.0	-
Crest of emergency spillway	1,194.0	515,800
Top of gates	1,185.1	350,900
Top of conservation pool	1,183.0	317,800
Crest of spillway	1,176.6	230,100
Sill of gate	1,138.0	5,580
Lowest gated outlet (invert)	1,136.0	3,470

COOPERATION.--The diversions and capacity table were furnished by the West Central Texas Municipal Water District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 441,200 acre-ft Oct. 14, 1981, for several hours (elevation, 1,190.22 ft); minimum since normal operating level was reached in May 1969, 157,400 acre-ft Oct. 1, 1984 (elevation, 1,169.89 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 221,800 acre-ft Oct. 22,23 (elevation, 1,175.92 ft); minimum, 199,500 acre-ft May 29,30 (elevation, 1,173.98 ft).

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,173.0	188,800	1,175.0	211,000
1,174.0	199,700	1,176.0	222,800

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	211800	219600	217500	215400	212800	211500	208000	203800	203100	215300	210700	205400
2	211700	219600	217300	215100	213400	211500	208000	203600	204200	216000	210200	205700
3	211400	219500	217500	215100	214100	211000	208000	203100	206400	219000	210800	205500
4	211000	219300	217300	214800	214200	211000	207800	202900	206800	219300	210700	205100
5	210800	219300	217100	214900	214600	210800	207800	203100	209900	219000	210500	205200
6	210500	218700	217300	214600	214600	210900	207800	203000	214300	218700	210000	205500
7	210300	218700	217100	214100	214300	210500	207600	203300	214600	218600	209900	205100
8	210100	218700	217100	214100	214100	210500	207200	202900	214800	218400	209900	205100
9	210000	218700	216900	214200	213700	210700	207100	202500	215500	218100	209700	205000
10	209900	218100	216600	214200	213800	210200	207100	202500	216000	217800	209300	205100
11	210100	217800	216300	214200	213700	210500	206800	202300	216000	217400	209200	204800
12	210100	218200	216400	214000	213600	210200	206700	202300	216000	216900	209300	204600
13	210000	218200	216300	214100	213500	210700	206700	201700	216000	216300	209100	204000
14	209900	217800	216300	214000	213600	210500	206100	201800	216100	216100	208500	204600
15	209900	218000	216300	214200	214000	210500	205700	201600	216100	216000	208200	204200
16	209800	218000	216200	214000	213600	210500	205600	201400	216100	215500	208000	204100
17	209900	218300	216100	213800	213400	210500	205400	201400	216700	215100	207800	203800
18	215300	218300	215800	213700	213100	210200	205500	201200	217500	214800	207600	203400
19	221000	217100	216000	213800	213500	209900	206100	200800	218100	214400	209300	203300
20	221600	217400	216000	213800	212700	209800	206100	200800	218100	214100	208200	203100
21	221600	217100	216000	213500	212600	209900	205800	199900	217800	213700	207800	203100
22	221900	217100	216000	213300	212600	209900	205600	200000	217700	213700	207400	202900
23	221800	217000	215700	213400	212400	209500	205400	199700	217600	213600	206800	202500
24	221600	217000	215400	213400	212400	209300	205100	199900	217100	213400	207100	202400
25	221400	217400	215500	213000	212400	209000	205000	199900	217100	213000	205900	202200
26	221400	218000	215500	212800	212300	209000	204300	200000	216900	212800	206100	201800
27	221100	218100	215400	212800	211600	208800	204000	199900	216700	212200	206300	201700
28	220800	218100	215400	212900	211600	208800	204000	199900	216300	212000	206300	201000
29	220000	218100	215400	212700	---	208400	203900	199500	216100	211600	206000	201400
30	219800	217800	215400	212800	---	208400	203900	199500	215700	211400	205400	201200
31	219700	---	215400	212800	---	208400	---	199900	---	210800	205400	---
MAX	221800	219600	217500	215400	214600	211500	208000	203800	218100	219300	210800	205700
MIN	209800	217000	215400	212700	211600	208400	203900	199500	203100	210800	205400	201000
(†)	1175.74	1175.58	1175.37	1175.15	1175.05	1174.77	1174.37	1174.02	1175.40	1174.98	1174.50	1174.13
(‡)	+7600	-1900	-2400	-2600	-1200	-3200	-4500	-4000	+15800	-4900	-5400	-4200

CAL YR 1985 MAX 236500 MIN 202200 (‡) +14500
WTR YR 1986 MAX 221800 MIN 199500 (‡) -10900

(†) Elevation, in feet, at end of month.
(‡) Change in contents, in acre-feet.

08086400 HUBBARD CREEK RESERVOIR NEAR BRECKENRIDGE, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: September 1963 to current year.

324932098575101 - HUBBARD CR RES SITE P01

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	HARDNESS (MG/L AS CACO3)
MAR									
04...	1336	1.00	921	8.30	12.5	1.80	9.5	93	230
04...	1338	10.0	915	8.30	11.5	--	9.5	91	--
04...	1340	20.0	910	8.20	11.5	--	9.3	89	--
04...	1342	30.0	910	8.20	11.0	--	9.3	88	--
04...	1344	40.0	910	8.10	11.0	--	9.2	87	--
04...	1346	50.0	920	8.10	11.0	--	8.9	84	--
04...	1348	56.0	924	8.10	11.0	--	8.9	84	230
AUG									
05...	1300	1.00	935	8.10	29.0	1.40	6.5	--	210
05...	1302	10.0	934	8.10	29.0	--	6.5	--	--
05...	1304	20.0	934	8.00	29.0	--	6.5	--	--
05...	1306	30.0	933	8.00	28.5	--	6.4	--	--
05...	1308	40.0	936	7.50	27.5	--	4.6	--	--
05...	1310	50.0	951	7.40	26.0	--	3.2	41	--
05...	1312	56.0	951	7.40	26.0	--	3.0	39	220

DATE	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
MAR									
04...	120	65	16	87	3	7.3	105	42	200
04...	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--
04...	120	64	16	87	3	6.8	105	43	210
AUG									
05...	120	59	16	86	3	7.2	97	43	200
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	110	63	16	88	3	7.3	112	40	200

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
MAR								
04...	0.4	1.8	480	<0.10	0.2	0.01	6	<1
04...	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--
04...	--	--	--	<0.10	0.5	0.01	<10	<10
04...	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--
04...	--	2.0	490	<0.10	0.3	0.02	8	<1
AUG								
05...	0.4	4.2	470	<0.10	0.2	0.02	13	15
05...	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--
05...	--	--	--	<0.10	0.3	0.02	10	70
05...	--	--	--	<0.10	0.5	0.03	20	330
05...	--	--	--	--	--	--	--	--
05...	--	5.8	490	<0.10	0.5	0.02	42	950

HUBBARD CREEK RESERVOIR NEAR BRECKENRIDGE, TX--Continued

324649099000501 - HUBBARD CR RES SITE P09

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	HARDNESS (MG/L AS CACO3)
MAR									
04...	1620	1.00	915	8.40	15.5	1.40	9.2	96	220
04...	1622	10.0	920	8.40	12.5	--	9.4	92	--
04...	1624	20.0	925	8.40	12.0	--	9.0	87	--
04...	1626	30.0	920	8.30	12.0	--	8.7	84	--
04...	1628	42.0	917	8.20	11.5	--	8.4	80	230
AUG									
05...	1600	1.00	940	8.10	29.0	0.6	6.7	--	220
05...	1602	10.0	940	8.10	28.5	--	6.5	--	--
05...	1604	20.0	941	7.90	28.0	--	6.1	--	--
05...	1606	30.0	941	7.80	28.0	--	5.7	--	--
05...	1608	41.0	942	7.40	27.5	--	3.7	--	220

DATE	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)
MAR								
04...	120	63	16	86	3	7.0	104	41
04...	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--
04...	120	64	16	87	3	6.9	105	42
AUG								
05...	120	60	16	86	3	7.2	98	43
05...	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--
05...	110	60	16	84	3	7.2	103	41

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
MAR								
04...	200	1.6	480	<0.10	0.2	0.01	3	<1
04...	--	--	--	--	--	--	--	--
04...	--	--	--	<0.10	0.5	0.01	<10	<10
04...	--	--	--	--	--	--	--	--
04...	210	1.9	490	<0.10	0.3	0.02	6	17
AUG								
05...	200	4.4	480	<0.10	0.3	0.02	12	36
05...	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--
05...	--	--	--	<0.10	0.4	0.03	<10	180
05...	200	4.9	480	<0.10	0.5	0.03	19	430

324606099000201 - HUBBARD CR RES SITE P10

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
MAR							
04...	1300	1.00	915	8.10	13.0	9.1	90
04...	1302	10.0	915	8.10	13.0	9.1	90
04...	1304	20.0	916	8.10	12.5	9.0	88
04...	1306	29.0	916	8.10	12.5	8.7	85
AUG							
05...	1236	1.00	943	8.10	29.0	6.7	--
05...	1238	10.0	943	8.10	28.5	6.6	--
05...	1240	20.0	944	8.00	28.5	6.4	--
05...	1242	28.0	944	7.90	28.5	6.1	--

HUBBARD CREEK RESERVOIR NEAR BRECKENRIDGE, TX--Continued

324514099010201 - HUBBARD CR RES SITE P11

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
MAR							
04...	1642	1.00	921	8.40	14.5	9.2	94
04...	1644	10.0	925	8.30	13.0	8.8	87
04...	1646	20.0	927	8.20	13.0	8.0	79
AUG							
05...	1630	1.00	950	8.20	30.5	7.0	--
05...	1632	10.0	950	8.00	28.5	6.4	--
05...	1634	20.0	950	8.00	28.5	6.1	--

324301099001701 - HUBBARD CR RES SITE P12

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	HARDNESS (MG/L AS CACO3)
MAR									
04...	1711	1.00	949	8.70	15.0	0.3	10.2	105	240
04...	1713	9.00	953	8.50	13.5	--	8.5	85	240
AUG									
05...	1700	1.00	978	8.20	30.5	0.2	7.6	--	230
05...	1702	8.00	967	7.70	28.5	--	5.9	--	230

DATE	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)
MAR								
04...	130	71	15	91	3	6.9	113	51
04...	120	70	15	91	3	6.7	113	52
AUG								
05...	120	67	16	89	3	7.6	110	43
05...	120	64	16	88	3	7.4	107	42

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
MAR								
04...	210	2.2	510	<0.10	0.6	0.05	<3	17
04...	210	2.2	510	<0.10	0.5	0.07	8	28
AUG								
05...	210	5.4	500	<0.10	0.8	0.05	56	49
05...	210	5.1	500	<0.10	1.0	0.06	12	84

324949098594301 - HUBBARD CR RES SITE P13

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
MAR							
04...	1402	1.00	910	8.30	12.5	9.5	93
04...	1404	10.0	909	8.30	12.0	9.5	92
04...	1406	20.0	910	8.30	11.5	9.4	90
04...	1408	30.0	915	8.30	11.5	9.4	90
04...	1410	41.0	924	8.20	11.0	9.0	85
AUG							
05...	1330	1.00	935	8.10	29.5	6.6	--
05...	1332	10.0	935	8.10	29.0	6.6	--
05...	1334	20.0	935	8.00	28.5	6.3	--
05...	1336	30.0	936	7.80	28.0	5.8	--
05...	1338	40.0	943	7.40	27.0	3.5	46
05...	1340	53.0	962	7.40	26.0	3.3	42

HUBBARD CREEK RESERVOIR NEAR BRECKENRIDGE, TX--Continued

324802099021601 - HUBBARD CR RES SITE P15

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
MAR							
04...	1425	1.00	924	8.40	14.5	9.2	94
04...	1427	10.0	924	8.30	13.5	9.1	91
04...	1429	20.0	924	8.30	13.0	9.0	89
AUG							
05...	1356	1.00	940	8.20	29.5	6.8	--
05...	1358	10.0	940	8.10	29.5	6.6	--
05...	1400	19.0	939	8.00	29.5	6.3	--

324653099032401 - HUBBARD CR RES SITE P16

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CACO3)
MAR									
04...	1444	1.00	947	8.30	16.0	0.6	8.9	94	240
04...	1446	10.0	961	8.10	14.0	--	8.3	84	--
04...	1448	18.0	1030	8.10	14.0	--	7.7	78	250
AUG									
05...	1420	1.00	941	8.20	30.0	0.3	6.8	--	220
05...	1422	10.0	940	8.00	29.0	--	6.4	--	--
05...	1424	17.0	942	8.00	29.0	--	6.2	--	220

DATE	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)
MAR								
04...	130	68	17	90	3	7.4	108	47
04...	--	--	--	--	--	--	--	--
04...	140	71	18	100	3	6.8	115	55
AUG								
05...	120	61	16	87	3	7.1	98	43
05...	--	--	--	--	--	--	--	--
05...	120	60	16	87	3	7.3	98	43

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAR								
04...	210	1.6	510	<0.10	0.3	0.02	5	3
04...	--	--	--	<0.10	0.6	0.03	<10	<10
04...	230	1.7	550	<0.10	0.3	0.03	22	8
AUG								
05...	200	4.8	480	<0.10	0.5	0.05	7	7
05...	--	--	--	<0.10	0.5	0.07	10	20
05...	200	4.7	480	<0.10	0.6	0.10	16	31

324608099042101 - HUBBARD CR RES SITE P17

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
MAR							
04...	1506	1.00	1040	8.30	17.0	9.2	99
04...	1508	10.0	1380	8.10	14.0	7.4	75
04...	1510	16.0	1410	8.00	14.0	6.9	70
AUG							
05...	1448	1.00	942	7.90	28.5	6.3	--
05...	1450	10.0	944	7.50	28.5	4.8	--
05...	1452	15.0	946	7.40	28.5	3.9	--

HUBBARD CREEK RESERVOIR NEAR BRECKENRIDGE, TX--Continued

324541099053601 - HUBBARD CR RES SITE P18

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	HARDNESS (MG/L AS CACO3)
MAR									
04...	1525	1.00	1500	8.30	16.5	0.5	9.3	99	360
04...	1527	13.0	1710	8.10	14.5	--	7.4	76	400
AUG									
05...	1506	1.00	940	8.10	31.5	0.3	6.8	--	210
05...	1508	13.0	926	7.30	28.5	--	[illegible]	--	210

DATE	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)
MAR								
04...	220	99	27	160	4	5.8	139	120
04...	250	110	30	180	4	5.9	148	140
AUG								
05...	110	61	15	85	3	6.5	107	38
05...	110	61	15	84	3	6.8	108	38

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
MAR								
04...	330	1.9	830	0.30	0.7	0.03	<3	9
04...	370	2.1	930	0.30	0.9	0.06	29	57
AUG								
05...	200	6.7	480	<0.10	0.7	0.05	17	77
05...	190	6.3	470	<0.10	0.7	0.05	11	190

08086500 HUBBARD CREEK NEAR BRECKENRIDGE, TX

LOCATION.--Lat 32°50'13", long 98°56'52", Stephens County, Hydrologic Unit 12060105, at downstream side of pier of bridge on U.S. Highway 183, 1.4 mi downstream from Hubbard Creek Reservoir, 6.8 mi northwest of Breckenridge, 8.2 mi upstream from Gonzales Creek, and 11.2 mi upstream from Clear Fork Brazos River.

DRAINAGE AREA.--1,089 mi^2, of which 1,085 mi^2 is above Hubbard Creek Dam.

PERIOD OF RECORD.--April 1955 to September 1986 (discontinued).
Water-quality records: Chemical analyses: April 1955 to September 1975. Water temperatures: April 1955 to September 1975.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,092.12 ft above National Geodetic Vertical Datum of 1929. Prior to July 16, 1959, at site 300 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Flow is regulated by Hubbard Creek Reservoir (station 08086400) 1.4 mi upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--7 years (water years 1956-62) prior to completion of Hubbard Creek Dam, 170 ft^3/s (123,200 acre-ft/yr); 24 years (water years 1963-86) regulated, 41.3 ft^3/s (29,920 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,500 ft^3/s May 26, 1957 (gage height, 34.00 ft); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1925, 34.2 ft July 20, 1953, from information by local resident and State Department of Highways and Public Transportation.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 99 ft^3/s July 3 at 1130 hours (gage height, 6.56 ft); minimum, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.07	.06	.01	.01	.01	.00	.01	1.2	.00	.00	.00
2	.00	.08	.05	.01	.03	.01	.00	.01	2.5	.20	.00	.00
3	.00	.07	.05	.01	.11	.01	.01	.00	.18	36	.00	.00
4	.00	.06	.05	.01	.05	.01	.01	.00	.27	3.5	.00	.00
5	.00	.07	.05	.00	.05	.01	.01	.00	7.5	.88	.00	.00
6	.00	.07	.05	.00	.05	.01	.01	.00	.93	.41	.00	.00
7	.00	.07	.05	.00	.03	.01	.01	.00	.28	.25	.00	.00
8	.00	.07	.05	.00	.02	.01	.01	.00	.16	.15	.00	.00
9	.00	.06	.05	.00	.02	.01	.00	.00	.08	.10	.00	.00
10	.00	.07	.05	.00	.03	.01	.00	.00	.06	.05	.00	.00
11	.00	.07	.05	.00	.02	.02	.00	.00	4.3	.03	.00	.00
12	.00	.08	.06	.00	.02	.03	.00	.00	1.1	.01	.00	.00
13	.00	.09	.05	.00	.01	.04	.00	.00	.37	.01	.00	.00
14	.00	.09	.04	.00	.01	.04	.00	.00	.17	.00	.00	.00
15	.00	.11	.04	.00	.01	.03	.00	.00	.20	.00	.00	.00
16	.00	.10	.04	.00	.01	.03	.00	.00	.19	.00	.00	.00
17	.00	.09	.04	.00	.01	.01	.00	.00	.17	.00	.00	.00
18	1.0	.09	.03	.00	.01	.07	.00	.00	.19	.00	.00	.00
19	2.8	.08	.03	.00	.01	.03	.10	.00	.13	.00	.00	.00
20	.95	.06	.03	.00	.01	.01	.08	.00	.08	.00	.00	.00
21	.36	.06	.03	.00	.01	.01	.04	.00	.05	.00	.00	.00
22	.17	.06	.02	.00	.01	.01	.02	.00	.04	.00	.00	.00
23	.11	.06	.01	.00	.01	.01	.01	.00	.02	.00	.00	.00
24	.08	.06	.01	.00	.01	.01	.01	.00	.01	.00	.00	.00
25	.07	.07	.01	.00	.01	.01	.01	.04	.01	.00	.00	.00
26	.06	.15	.01	.00	.01	.01	.01	.03	.01	.00	.00	.00
27	.06	.20	.01	.00	.01	.01	.00	.06	.00	.00	.00	.00
28	.04	.10	.01	.00	.01	.01	.00	.03	.00	.00	.00	.00
29	.04	.09	.01	.00	---	.01	.00	.01	.00	.00	.00	.00
30	.04	.07	.01	.00	---	.00	.00	.04	.00	.00	.00	.00
31	.04	---	.01	.01	---	.00	---	.07	---	.00	.00	---
TOTAL	5.82	2.47	1.06	.05	.60	.50	.34	.30	20.20	41.59	.00	.00
MEAN	.19	.08	.03	.00	.02	.02	.01	.01	.67	1.34	.00	.00
MAX	2.8	.20	.06	.01	.11	.07	.10	.07	7.5	36	.00	.00
MIN	.00	.06	.01	.00	.01	.00	.00	.00	.00	.00	.00	.00
AC-FT	12	4.9	2.1	.1	1.2	.0	.7	.6	40	82	.00	.00

CAL YR 1985 TOTAL 162.89 MEAN .45 MAX 28 MIN .00 AC-FT 323
WTR YR 1986 TOTAL 72.93 MEAN .20 MAX 36 MIN .00 AC-FT 145

08088000 BRAZOS RIVER NEAR SOUTH BEND, TX

LOCATION.--Lat 33°01'27", long 98°38'37", Young County, Hydrologic Unit 12060201, on left bank 225 ft downstream from bridge on State Highway 67, 1.8 mi downstream from Clear Fork Brazos River, 2.0 mi northeast of South Bend, and at mile 758.2.

DRAINAGE AREA.--22,673 mi^2, of which 9,566 mi^2 probably is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1938 to current year.

REVISED RECORDS.--WRD TX-74-1: 1973. WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,002.98 ft above National Geodetic Vertical Datum of 1929. Prior to Feb. 23, 1939, nonrecording gage at site 255 ft upstream; and Feb. 23, 1939, to Mar. 9, 1961, water-stage recorder at site 225 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Oct. 26-29 . Records good except for estimated daily discharges, which are poor. There are many small diversions upstream from station for municipal supply and oilfield opeations. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see station 08080950. Gage-height telemeter at station.

AVERAGE DISCHARGE.--48 years, 819 ft^3/s (593,400 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 87,400 ft^3/s May 4, 1941 (gage height, 27.35 ft); maximum gage height, 41.50 ft Aug. 6, 1978, from floodmark; no flow at times.
Maximum stage since 1938, that of Aug. 6, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1876 reached a stage of 36.2 ft, from information by State Department of Highways and Public Transportation and U.S. Army Corps of Engineers. Flood of Sept. 24, 1900, reached a stage of 29.5 ft, and flood of June 16, 1930, reached a stage of 35.5 ft, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 11,000 ft^3/s and maximum(*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 19	1630	*14,800	*20.14	June 6	1100	13,900	19.46

Minimum discharge, 21.0 ft^3/s Aug. 15, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	114	430	142	104	75	70	60	266	342	407	56	1710
2	98	396	142	103	75	69	61	178	1180	346	52	2990
3	104	361	138	102	96	67	62	188	1380	2480	59	1260
4	113	336	133	98	97	71	75	209	1340	2300	68	1350
5	123	321	134	100	102	69	80	170	5720	6120	60	1960
6	100	300	135	101	106	69	74	121	12700	4070	59	6330
7	86	280	133	93	99	69	68	107	5260	1990	56	7770
8	79	269	127	91	98	70	79	87	3570	1500	41	5810
9	72	257	128	91	101	71	116	76	3580	1010	39	4680
10	65	234	123	91	106	65	105	1230	3250	805	32	3420
11	63	225	122	89	107	67	91	1680	2680	640	26	2190
12	132	218	122	89	109	70	80	432	2330	539	25	1710
13	2190	208	122	91	114	73	74	456	1940	458	28	1570
14	1510	195	126	93	111	96	63	333	1610	385	25	1380
15	1970	195	125	90	110	89	60	277	1410	336	21	1230
16	1490	195	120	91	107	81	58	250	1060	291	23	1100
17	1150	189	129	90	102	84	56	236	901	258	28	982
18	4570	187	118	88	97	91	51	283	917	222	24	915
19	13300	188	122	90	96	87	95	427	1120	205	654	1880
20	10800	180	124	85	90	95	522	423	735	183	804	1170
21	6270	177	118	80	85	102	595	218	591	152	687	803
22	2490	172	118	83	85	101	262	125	550	138	518	693
23	1630	167	117	84	86	85	242	84	779	130	418	630
24	1290	160	114	81	81	79	327	84	710	132	354	585
25	1000	163	112	77	81	77	386	112	842	124	322	546
26	832	171	112	77	78	74	280	152	653	125	270	527
27	743	170	111	77	74	73	212	182	511	101	240	504
28	659	179	110	76	70	69	171	262	453	87	200	478
29	581	157	110	72	---	68	355	253	462	77	232	461
30	527	154	109	73	---	66	287	207	395	67	754	870
31	471	---	105	74	---	64	---	205	---	61	1450	---
TOTAL	54622	6834	3801	2724	2638	2381	5047	9313	58971	25739	7625	57504
MEAN	1762	228	123	87.9	94.2	76.8	168	300	1966	830	246	1917
MAX	13300	430	142	104	114	102	595	1680	12700	6120	1450	7770
MIN	63	154	105	72	70	64	51	76	342	61	21	461
AC-FT	108300	13560	7540	5400	5230	4720	10010	18470	117000	51050	15120	114100

CAL YR 1985 TOTAL 304232 MEAN 834 MAX 13300 MIN 19 AC-FT 603400
WTR YR 1986 TOTAL 237199 MEAN 650 MAX 13300 MIN 21 AC-FT 470500

08088000 BRAZOS RIVER NEAR SOUTH BEND, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: July 1941 to March 1948, May 1965 to current year. Chemical and biochemical analyses: November 1977 to current year. Pesticide analyses: March 1968 to April 1982. Sediment analyses: May to September 1962, November 1977 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1977 to September 1981.
WATER TEMPERATURES: November 1977 to September 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 14,000 microsiemens Dec. 4, 1979; minimum daily, 350 microsiemens Aug. 6, 1978.
WATER TEMPERATURES: Maximum daily, 36.0°C July 18, 20-23, Aug. 17, 1981; minimum daily, 0.0°C Jan. 10, 11, 18, 21, Feb. 18, 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)
NOV												
13...	1330	205	7570	8.00	18.5	74	12.0	138	4.0	K56	K72	920
JAN												
16...	0930	89	9700	7.90	16.0	5.6	12.5	137	1.6	K8	K32	1300
MAR												
19...	0930	82	8380	7.90	12.0	3.5	10.7	107	4.7	K11	K17	1300
MAY												
07...	1000	111	12900	8.00	23.0	150	6.7	87	2.8	K800	K2000	1500
JUL												
23...	1120	131	6870	7.40	29.5	--	9.0	--	1.8	K30	K80	830
AUG												
27...	1000	261	2500	8.00	25.5	4200	6.9	89	1.8	1200	K560	370

DATE	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
NOV												
13...	800	250	70	1300	19	8.4	122	850	2000	0.7	9.2	4640
JAN												
16...	1100	350	100	1700	21	9.5	162	900	2800	0.5	4.9	6050
MAR												
19...	1200	310	120	1400	18	12	115	1100	2200	0.6	2.5	5350
MAY												
07...	1400	430	100	2500	29	14	118	1200	3800	0.5	7.1	8080
JUL												
23...	710	230	60	1100	17	10	112	770	1800	0.7	12	4180
AUG												
27...	270	97	30	500	12	6.3	94	320	730	1.0	9.0	1700

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
NOV												
13...	4600	--	<0.01	<0.10	0.20	0.11	0.4	0.6	0.09	<0.01	<0.01	--
JAN												
16...	6000	--	<0.01	<0.10	0.08	0.09	0.42	0.5	0.07	0.05	0.04	0.12
MAR												
19...	5200	--	<0.01	<0.10	0.21	0.19	0.99	1.2	0.16	0.04	0.02	0.06
MAY												
07...	8100	--	<0.01	<0.10	0.07	0.09	0.93	1.0	0.17	0.01	<0.01	--
JUL												
23...	4000	--	<0.01	<0.10	0.13	0.11	0.57	0.7	0.04	<0.01	<0.01	--
AUG												
27...	1700	0.55	0.02	0.57	<0.01	0.03	--	0.48	1.10	0.02	0.01	0.03

DATE	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
NOV												
13...	103	57	98	<10	2	200	<10	<1	<1	<1	1	40
JAN												
16...	24	5.8	93	--	--	--	--	--	--	--	--	--
MAR												
19...	21	4.6	95	<10	2	200	<10	<1	<1	8	5	<10
MAY												
07...	261	78	99	--	--	--	--	--	--	--	--	--
JUL												
23...	75	27	99	20	4	300	<10	<1	<1	<1	2	30
AUG												
27...	2500	1760	100	--	--	--	--	--	--	--	--	--

08088000 BRAZOS RIVER NEAR SOUTH BEND, TX--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV 13...	<1	80	20	<0.1	8	<1	1	<1	5000	40	20
JAN 16...	--	--	--	--	--	--	--	--	--	--	--
MAR 19...	1	100	140	<0.1	4	8	1	<1	4800	38	20
MAY 07...	--	--	--	--	--	--	--	--	--	--	--
JUL 23...	<5	70	20	0.1	3	1	<1	<1	4400	20	10
AUG 27...	--	--	--	--	--	--	--	--	--	--	--

08088300 BRIAR CREEK NEAR GRAHAM, TX

LOCATION.--Lat 33°12'43", long 98°37'06", Young County, Hydrologic Unit 12060201, near right bank at downstream side of bridge on Farm Road 1769, 3.7 mi upstream from mouth, and 7.0 mi northwest of Graham.

DRAINAGE AREA.--24.2 mi^2.

PERIOD OF RECORD.--April 1958 to current year. Prior to October 1965, published as Oak Creek near Graham.

REVISED RECORDS.--WSP 2122: 1962. WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 1090 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharge. Records fair. No diversions upstream from station.

AVERAGE DISCHARGE.--28 years (water years 1959-86), 3.84 ft^3/s (2.15 in/yr), 2,780 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,230 ft^3/s Sept. 18, 1986 (gage height 13.52 ft), maximum gage-height, 13.54 ft May 22, 1982.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1900, 15.2 ft in September 1955. Flood in May 1957 reached a stage of 15.0 ft, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft^3/s and maximum (*).

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 18	0800	323	5.75	Sept. 18	2330	*4,230	*13.52
June 5	0600	519	8.41				

Minimum discharge, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.38	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	1.4	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	1.4	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	72	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	351	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	20	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	2.4	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.70	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.72	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.25	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	13	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	3.4	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.71	.00	.00	.00
14	7.9	.00	.00	.00	.00	.00	.00	.00	.17	.00	.00	.00
15	.31	.00	.00	.00	.00	.00	.00	.00	1.7	.00	.00	.00
16	.04	.00	.00	.00	.00	.00	.00	.00	.08	.00	.00	.00
17	.01	.00	.00	.00	.00	.00	.00	.05	.24	.00	.00	.00
18	155	.00	.00	.00	.00	.00	.00	3.0	.67	.00	.00	422
19	35	.00	.00	.00	.00	.00	.06	.43	.01	.00	.00	750
20	1.9	.00	.00	.00	.00	.00	.05	.08	.00	.00	.00	4.3
21	.33	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00	.12
22	.07	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00
23	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	3.0	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	12	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	1.3	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.14	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.02	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.01	---	.00	.00	---
TOTAL	200.57	.00	.00	.00	.00	.00	.11	20.07	470.23	.00	.00	1176.42
MEAN	6.47	.00	.00	.00	.00	.00	.00	.65	15.7	.00	.00	39.2
MAX	155	.00	.00	.00	.00	.00	.06	12	351	.00	.00	750
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
CFSM	.27	.00	.00	.00	.00	.00	.00	.03	.65	.00	.00	1.62
IN.	.31	.00	.00	.00	.00	.00	.00	.03	.72	.00	.00	1.81
AC-FT	398	.00	.00	.00	.00	.00	.2	40	933	.00	.00	2330

CAL YR 1985 TOTAL 1794.23 MEAN 4.92 MAX 518 MIN .00 CFSM .20 IN. 2.76 AC-FT 3560
WTR YR 1986 TOTAL 1867.40 MEAN 5.12 MAX 750 MIN .00 CFSM .21 IN. 2.87 AC-FT 3700

08088400 LAKE GRAHAM NEAR GRAHAM, TX

LOCATION.--Lat 33°08'04", long 98°36'48", Young County, Hydrologic Unit 12060201, near left end of earthen dam on Salt Creek, 2.2 mi northwest of Graham, 5 mi downstream from Briar Creek, and 9.5 mi upstream from mouth.

DRAINAGE AREA.--221 mi².

PERIOD OF RECORD.--March 1958 to September 1963 (unpublished record), October 1963 to current year. Prior to October 1965, monthend contents only.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1.30 ft above National Geodetic Vertical datum of 1929. Prior to October 1963, nonrecording gage at same site and datum.

REMARKS.--The lake is formed by a rolled earthfill dam 5,000 ft long. Lake Graham was connected with Lake Eddleman in 1959 by a cut channel at a gage height of 1,050.0 ft. Deliberate impoundment began Apr. 28, 1958, and dam was completed in July 1958. The uncontrolled emergency spillway is a 1,050-foot-wide cut at the right end of dam. The spillway is designed to discharge 136,500 ft³/s at a gage height of 1,087.5 ft. The dam is the property of the city of Graham and was built to impound water for municipal and industrial uses. In addition, water is used by the Texas Electric Service Co. for operation of their steam generating powerplant. The capacity table is based on an original survey of Lake Eddleman in 1928 and a Salt Creek survey of 1953. Figures given herein represent total contents. Data regarding the dam and lake are given in the following table:

	Gage height (feet)	Capacity (acre-feet)
Top of dam..	1,092.0	-
Crest of spillway..	1,075.0	53,680
Bottom of interconnecting channel....................................	1,050.0	8,670
Lowest gated outlet (invert)...	1,050.0	8,670

COOPERATION.--Capacity table was provided by Freese, Nichols, and Endress, Consulting Engineers. Record of diversions provided by the city of Graham .

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 61,120 acre-ft Apr. 30, 1970 (gage height, 1,077.77 ft); minimum, 28,760 acre-ft Sept. 30, 1979 (gage height, 1,064.09 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 57,940 acre-ft June 6 at 0100 hours (gage height, 1,076.61 ft); minimum, 47,150 acre-ft Oct. 14 (gage height, 1,072.38 ft).

Capacity table (gage height, in feet, and total contents, in acre-feet)

1,072.0	46,220	1,076.0	56,290
1,074.0	51,140	1,078.0	61,780

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47680	52030	51240	50270	49300	48860	48150	48440	52820	53270	51600	49260
2	47640	51950	51140	50250	49380	48910	48150	48390	53250	53170	51470	49280
3	47560	51930	51090	50220	49430	48830	48120	48290	53530	54360	51420	49300
4	47460	51850	51040	50170	49400	48780	48120	48200	55140	54310	51370	49350
5	47390	51830	51020	50120	49500	48780	48100	48200	57910	54180	51270	49380
6	47340	51780	50940	50120	49450	48760	48070	48170	56880	54050	51170	49400
7	47240	51720	50940	50020	49430	48730	48070	48150	55610	53940	51120	49430
8	47240	51720	50940	49970	49350	48640	48030	48100	55040	53860	51020	49380
9	47200	51720	50940	49920	49350	48710	47900	48120	54780	53730	50920	49280
10	47200	51620	50870	49950	49300	48640	47850	50770	54720	53650	50840	49180
11	47200	51570	50820	49920	49280	48680	47880	52000	55190	53580	50820	49060
12	47170	51600	50820	49880	49230	48680	47810	51930	55010	53480	50690	48960
13	47170	51620	50790	49850	49230	48660	47780	51930	54750	53350	50540	48930
14	47370	51650	50720	49850	49180	48660	47660	51880	54590	53270	50490	48880
15	47340	51570	50670	49850	49230	48610	47610	51780	54540	53170	50400	48860
16	47320	51570	50640	49830	49210	48590	47540	51720	54380	53070	50350	48810
17	47390	51550	50640	49800	49210	48680	47490	52130	54310	52970	50270	48760
18	50490	51600	50640	49780	49210	48680	47510	52360	54250	52870	50220	49900
19	52260	51470	50640	49750	49180	48590	47950	52740	54250	52790	50120	57020
20	52380	51440	50570	49730	49110	48560	48370	52710	54150	52710	50000	56030
21	52410	51390	50570	49680	49060	48510	48390	52690	54070	52610	49900	55380
22	52380	51390	50590	49600	49030	48490	48340	52610	54020	52590	49780	55010
23	52380	51370	50590	49580	49060	48460	48320	52560	53910	52510	49650	54850
24	52330	51340	50520	49550	49010	48420	48220	52460	53840	52460	49680	54780
25	52310	51320	50420	49530	49030	48390	48200	52490	53810	52360	49600	54590
26	52280	51240	50450	49450	48980	48340	48120	52710	53710	52280	49550	54410
27	52260	51320	50420	49380	48930	48320	48070	52790	53600	52160	49530	54200
28	52180	51370	50370	49400	48860	48340	48030	52770	53530	52050	49400	54100
29	52130	51290	50370	49280	---	48270	47950	52770	53450	51950	49280	54070
30	52050	51290	50400	49280	---	48250	48270	52770	53320	51800	49180	54410
31	51980	---	50320	49300	---	48200	---	52710	---	51700	49260	---
MAX	52410	52030	51240	50270	49500	48910	48390	52790	57910	54360	51600	57020
MIN	47170	51240	50320	49280	48860	48200	47490	48100	52820	51700	49180	48760
(†)	1074.33	1074.06	1073.67	1073.26	1073.08	1072.81	1072.84	1074.62	1074.86	1074.22	1073.24	1073.28
(‡)	+4270	-690	-970	-1020	-440	-660	+70	+4440	+610	-1620	-2440	+5150
(††)	198	162	170	192	159	202	221	225	222	346	357	201

CAL YR 1985	MAX	57690	MIN	47170	(‡)	-7202	(††)	-
WTR YR 1986	MAX	57910	MIN	47170	(‡)	+6700	(††)	2655

(†) Elevation, in feet, at end of month.
(‡) Change in contents, in acre-feet.
(††) Diversions, in acre-feet, for municipal use by the city of Graham.

08088450 BIG CEDAR CREEK NEAR IVAN, TX

LOCATION.--Lat 32°49'39", long 98°43'25", Stephens County, Hydrologic Unit 12060201, on left bank at downstream side of bridge on Farm Road 717, 3.2 mi south of Ivan, 8.2 mi northwest of Caddo, and 11.6 mi northeast of Breckenridge.

DRAINAGE AREA.--97.0 mi².

PERIOD OF RECORD.--December 1964 to current year.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 1090 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharge. Records good. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--21 years (water years 1966-86), 12.3 ft³/s (1.72 in/yr), 8,910 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,700 ft³/s Oct. 13, 1981 (gage height, 32.50 ft), from rating curve extended above 30,100 ft³/s; no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
June 1	2000	*1,550	*13.31	No other peak greater than base discharge.			

Minimum discharge, no flow Jan. 10, 11, result of freeze-up.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	.20	.68	.18	.16	.17	.08	1.7	329	.01	.03	.11
2	.04	.22	.51	.17	.30	.15	.09	6.2	150	.03	.04	.08
3	.05	.25	.07	.20	11	.11	.15	2.7	27	14	.04	.07
4	.05	.25	.40	.19	12	.10	.11	.25	53	9.3	.03	.06
5	.04	.29	.47	.23	4.8	.08	.07	.05	194	2.2	.03	.08
6	.06	.32	.47	.27	9.8	.07	.02	.05	43	.52	.02	.08
7	.07	.30	.52	.38	4.8	.06	.01	.07	19	1.1	.02	.06
8	.08	.16	.48	.16	1.2	.06	.01	.11	12	.21	.03	.05
9	.07	.11	.47	.01	.29	.06	.01	.09	5.9	.13	.03	.05
10	.11	.11	.47	.00	.09	.04	.01	.05	4.0	.13	.74	.10
11	.15	.11	.46	.00	.02	.08	.01	.03	33	.14	.91	.17
12	.15	.11	.39	.03	.01	.05	.01	.02	25	.15	.06	.04
13	.15	.11	.39	.07	.07	.08	.01	.01	12	.17	.03	.05
14	.17	.24	.39	.07	.29	.07	.01	.01	5.3	.18	.04	.05
15	.19	.53	.36	.08	.30	.04	.01	.02	15	.19	.05	.05
16	.15	.52	.24	.16	.32	.03	.01	.03	24	.23	.06	.07
17	.17	.40	.15	.26	.34	.01	.01	.04	56	.26	.06	.08
18	12	.61	.15	.32	.32	.07	.01	.02	78	.15	.07	.22
19	201	.57	.15	.28	.29	.05	11	.02	18	.15	.08	.30
20	26	.59	.13	.12	.34	.04	15	.02	8.9	.14	.06	.21
21	13	.71	.11	.20	.32	.03	3.6	.03	3.6	.14	.07	.08
22	5.2	.78	.13	.32	.25	.03	.95	.11	1.3	.14	.08	.05
23	2.6	.68	.15	.36	.22	.04	.32	.19	.55	.12	.07	.05
24	1.6	.68	.21	.36	.28	.10	.47	31	.19	.19	.06	.05
25	.72	.64	.19	.50	.25	.16	.68	49	.10	.15	.05	.04
26	.43	.92	.18	.40	.23	.21	1.0	11	.03	.13	.05	.05
27	.29	.89	.15	.29	.19	.13	1.4	119	.02	.08	.06	.07
28	.25	.89	.17	.08	.18	.11	1.4	21	.01	.05	.06	.08
29	.20	.89	.19	.08	---	.11	1.4	8.4	.01	.05	.10	.08
30	.19	.80	.19	.10	---	.06	1.7	3.1	.02	.05	.10	.14
31	.19	---	.19	.11	---	.05	---	1.4	---	.02	.10	---
TOTAL	265.42	13.88	9.21	5.98	48.66	2.45	39.56	255.72	1117.93	30.51	3.23	2.67
MEAN	8.56	.46	.30	.19	1.74	.08	1.32	8.25	37.3	.98	.10	.09
MAX	201	.92	.68	.50	12	.21	15	119	329	14	.91	.30
MIN	.04	.11	.07	.00	.01	.01	.01	.01	.01	.01	.02	.04
CFSM	.09	.00	.00	.00	.02	.00	.01	.09	.38	.01	.00	.00
IN.	.10	.01	.00	.00	.02	.00	.02	.10	.43	.01	.00	.00
AC-FT	526	28	18	12	97	4.9	78	507	2220	61	6.4	5.3

CAL YR 1985 TOTAL 876.03 MEAN 2.40 MAX 201 MIN .00 CFSM .02 IN. .34 AC-FT 1740
WTR YR 1986 TOTAL 1795.22 MEAN 4.92 MAX 329 MIN .00 CFSM .05 IN. .69 AC-FT 3560

08088500 POSSUM KINGDOM LAKE NEAR GRAFORD, TX

LOCATION.--Lat 32°52'20", long 98°25'32", Palo Pinto County, Hydrologic Unit 12060201, at Morris Sheppard Dam on the Brazos River, 2.6 mi upstream from Loving Creek, 11.3 mi southwest of Graford, and at mile 687.5.

DRAINAGE AREA.--23,596 mi², approximately, of which 9,566 mi² probably is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1941 to current year. Prior to October 1977, published as Possum Kingdom Reservoir.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 0.10 ft National Geodetic Vertical Datum of 1929 (levels by Brazos River Authority). Prior to Mar. 19, 1968, mercury U-tube in powerhouse at present site and datum.

REMARKS.--The lake is formed by reinforced concrete dam, Ambursen-type, massive buttress with flat-slab deck, a controlled spillway, two bulkhead sections, and an earthen-dike section. Total length of dam is 2,740 ft long. The dam was completed and storage began Mar. 21, 1941. The spillway has nine roof-weir gates (modified bear-trap type) that are 73.66 by 13 ft each and are designed to discharge about 100,000 ft³/s at a gage height of 1,000.0 ft. The outlet works consist of one controlled 54-inch-diameter conduit. Water is used for power development, irrigation, municipal, industrial, and recreational purposes. Two generators located in the powerhouse at dam can produce 22,500 kilowatts at a 1,000-foot gage height. Eleven major reservoirs, with a combined capacity of 607,800 acre-ft, largely regulate the inflow. The capacity curve is based on recomputation of a survey made in 1974. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see station 08080950. Gage-height telemeter at station since Jan. 13, 1981. Figures given herein represent total contents. Data regarding the dam and lake are given in the following table:

	Gage height (feet)	Capacity (acre-feet)
Top of dam	1,024.0	-
Design flood (top of gates)	1,000.0	570,200
Crest of spillway	987.0	383,300
Invert of penstock	911.5	4,560
Lowest gated outlet (invert of 54-inch conduit)	874.8	0

COOPERATION.--Capacity table 3-C provided by the Brazos River Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 743,700 acre-ft Oct. 5, 1941 (gage height, 1,001.0 ft); maximum gage height 1,003.60 ft Oct. 13, 1981; minimum observed, 273,000 acre-ft Feb. 19 to Mar. 17, 1953 (gage height, 967.0 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 567,800 acre-ft June 8 at 1200 hours (gage height, 999.86 ft); minimum, 458,900 acre-ft Oct. 13 (gage height, 992.93 ft).

Capacity table (gage height, in feet, and total contents, in acre-feet)

992.0	446,000	998.0	536,000
994.0	474,100	1,000.0	570,200
996.0	504,000		

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	461000	540700	527800	519100	506000	501700	492100	495900	516900	540000	528300	530400
2	460800	540900	526900	518500	508100	500200	492600	496100	519400	541200	529300	533600
3	461000	541200	527200	518600	508900	498700	491500	495900	522200	552700	530300	536000
4	460400	540400	527300	517800	508500	497600	492100	495600	527000	559400	531400	535500
5	460400	537500	526700	517200	509300	497300	492000	496400	535500	561300	531400	533200
6	460400	537500	527300	517100	508200	496800	492000	496400	548100	560600	530600	533700
7	460100	536900	526900	517100	506500	496400	491800	495300	563200	559900	529800	541400
8	459300	536500	527500	516300	505600	495600	491800	496500	559400	557700	527300	549600
9	459900	536500	528000	515300	505600	497100	491500	496100	561000	555400	526000	554400
10	460000	535900	527800	515200	505000	496100	490800	495500	562000	553200	526900	557200
11	460100	533700	524600	515500	504800	497000	491500	499000	562200	553200	526400	557200
12	459300	533400	524800	515000	504600	498200	491200	500600	560600	551000	524900	554900
13	460400	532600	522500	514700	504500	498400	491100	501400	557700	550100	523600	552800
14	464200	532400	521500	513200	505000	497100	490800	501900	554600	548100	522800	550000
15	466600	530000	521500	513600	505300	497000	490800	502000	551800	548100	521500	548900
16	470100	529800	521000	513400	506000	495800	490800	502000	547900	548100	519800	549800
17	473100	530400	520600	513600	505700	496500	489700	502600	545400	546200	519600	551000
18	479200	530900	519900	511200	505900	495900	490900	503600	544700	545900	518300	549100
19	497400	530000	520200	511200	506000	494100	492100	504000	545500	544400	516400	549300
20	516600	529100	519900	510400	505700	493900	492100	504500	545000	542900	515800	551800
21	533200	528100	520400	510100	504200	493900	490900	505300	544000	540200	516900	552700
22	541200	528800	520600	507900	504000	493900	491500	505100	543400	541000	517400	553000
23	541700	529100	520400	507800	505100	493900	492000	505600	543000	539000	517800	553000
24	541200	529500	520200	507900	504000	493800	492300	507500	540700	537500	518800	551700
25	540200	529000	519400	507800	503600	492900	492900	509000	540700	536500	518800	550300
26	539500	529100	520400	507500	503100	493200	492900	512600	541000	535400	518000	550000
27	541000	528500	519900	506400	502600	492900	493300	511700	540000	535000	519100	548400
28	541500	528100	520100	506800	501700	492900	493200	512500	540400	533900	517800	547400
29	541700	528800	520200	506200	---	492600	493300	512800	539500	531800	517800	547400
30	541700	529600	521000	505600	---	492700	495200	512800	539900	529800	518000	548300
31	541500	---	520600	505900	---	492000	---	513400	---	530300	519400	---
MAX	541700	541200	528000	519100	509300	501700	495200	513400	563200	561300	531400	557200
MIN	459300	528100	519400	505600	501700	492000	489700	495300	516900	529800	515800	530400
(†)	998.33	997.61	997.05	996.12	995.85	995.21	995.42	996.60	998.23	997.65	996.98	998.73
(‡)	+80400	-11900	-9000	-14700	-4200	-9700	+3200	+18200	+26500	-9600	-10900	+28900

CAL YR 1985 MAX 564800 MIN 459300 (‡) -15400
WTR YR 1986 MAX 563200 MIN 459300 (‡) +87200

(†) Elevation, in feet, at end of month.
(‡) Change in contents, in acre-feet.

08088500 POSSUM KINGDOM LAKE NEAR GRAFORD, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: March 1962 to current year.

325208098254201 - POSSUM KINGDOM LK SITE AR

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
MAR							
05...	1155	1.00	3100	8.60	13.0	10.5	105
05...	1157	10.0	3100	8.60	13.0	10.4	104
05...	1159	20.0	3100	8.60	13.0	10.4	104
05...	1201	30.0	3090	8.50	12.5	10.4	103
05...	1203	40.0	3080	8.40	11.0	9.6	91
05...	1205	50.0	3070	8.30	10.5	9.2	87
05...	1207	58.0	3070	8.30	10.5	9.0	85
MAY							
13...	1215	1.00	3130	8.40	25.0	7.7	98
13...	1217	10.0	3130	8.40	24.5	7.8	99
13...	1219	20.0	3130	8.40	22.5	7.9	96
13...	1221	30.0	3140	8.30	22.0	7.8	94
13...	1223	40.0	3140	8.20	20.0	7.3	85
13...	1225	50.0	3140	8.00	15.5	7.1	75
13...	1227	58.0	3150	7.90	14.5	7.0	72
AUG							
06...	1256	1.00	3210	8.30	30.0	7.4	--
06...	1258	10.0	3210	8.30	29.5	7.4	--
06...	1300	20.0	3210	8.30	29.0	7.2	--
06...	1302	30.0	3230	7.80	28.0	4.4	--
06...	1304	40.0	3260	7.40	27.0	0.7	9
06...	1306	50.0	3400	7.40	24.5	0.2	3
06...	1308	60.0	3450	7.40	23.0	0.3	4

325218098254101 - POSSUM KINGDOM LK SITE AC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CACO3)
MAR									
05...	1121	1.00	3100	8.60	13.5	3.70	10.5	106	540
05...	1123	10.0	3100	8.60	13.0	--	10.5	105	--
05...	1125	20.0	3100	8.60	13.0	--	10.5	105	--
05...	1127	30.0	3100	8.60	12.0	--	10.5	102	--
05...	1129	40.0	3100	8.50	11.0	--	9.7	92	--
05...	1131	50.0	3100	8.40	10.0	--	9.0	84	--
05...	1133	60.0	3100	8.30	10.0	--	8.4	78	--
05...	1135	70.0	3300	8.00	9.5	--	6.1	--	--
05...	1137	80.0	3530	7.80	9.0	--	2.9	--	--
05...	1139	90.0	3580	7.80	9.0	--	2.2	--	--
05...	1141	97.0	3600	7.70	9.0	--	1.9	--	590
MAY									
13...	1130	1.00	3150	8.40	25.0	2.80	7.7	98	560
13...	1132	10.0	3140	8.40	24.5	--	7.7	97	--
13...	1134	20.0	3130	8.40	22.5	--	7.9	96	--
13...	1136	30.0	3140	8.40	21.5	--	7.8	93	--
13...	1138	40.0	3150	8.20	19.5	--	7.3	84	--
13...	1140	50.0	3140	8.00	16.0	--	7.0	75	--
13...	1142	60.0	3150	7.90	13.5	--	7.0	71	--
13...	1144	70.0	3220	7.80	12.5	--	6.6	65	--
13...	1146	80.0	3260	7.70	12.0	--	6.0	59	--
13...	1148	90.0	3300	7.70	12.0	--	5.7	56	--
13...	1150	100	3300	7.70	11.5	--	5.3	51	540
AUG									
06...	1210	1.00	3230	8.30	30.0	2.50	7.4	--	500
06...	1212	10.0	3230	8.30	29.5	--	7.4	--	--
06...	1214	20.0	3240	8.30	29.0	--	7.2	--	--
06...	1216	30.0	3250	7.90	28.0	--	4.9	--	--
06...	1218	40.0	3260	7.40	26.5	--	0.5	7	--
06...	1220	50.0	3400	7.40	24.0	--	0.2	3	--
06...	1222	60.0	3460	7.40	22.5	--	0.2	2	--
06...	1224	70.0	3510	7.50	20.5	--	0.2	2	--
06...	1226	80.0	3500	7.50	18.5	--	0.3	3	--
06...	1228	90.0	3450	7.50	17.0	--	0.3	3	--
06...	1230	97.0	3440	7.40	16.5	--	0.3	3	550

POSSUM KINGDOM LAKE NEAR GRAFORD, TX--Continued

325218098254101 - POSSUM KINGDOM LK SITE AC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
MAR									
05...	440	150	40	450	9	7.6	100	450	730
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	480	170	40	540	10	7.3	111	500	870
MAY									
13...	460	130	56	470	9	7.9	98	400	720
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	430	150	40	500	10	7.5	108	420	760
AUG									
06...	420	140	36	440	9	7.5	80	420	750
06...	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--
06...	430	160	37	480	9	7.3	122	420	780

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
MAR								
05...	0.5	6.2	1900	<0.10	0.2	0.01	30	10
05...	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--
05...	--	--	--	0.20	0.5	<0.01	10	30
05...	--	--	--	0.30	0.6	0.01	10	40
05...	--	--	--	--	--	--	--	--
05...	--	7.4	2200	0.30	0.4	0.02	30	230
MAY								
13...	0.4	5.9	1800	<0.10	0.4	<0.01	10	10
13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
13...	--	--	--	<0.10	0.4	<0.01	20	<10
13...	--	--	--	<0.10	0.3	0.01	20	40
13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
13...	--	7.5	1900	0.30	0.4	0.02	20	190
AUG								
06...	0.4	4.7	1800	<0.10	0.4	0.01	10	<10
06...	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--
06...	--	--	--	<0.10	0.3	0.02	10	20
06...	--	--	--	<0.10	0.3	0.01	70	200
06...	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--
06...	--	8.0	2000	<0.10	0.7	0.16	290	700

POSSUM KINGDOM LAKE NEAR GRAFORD, TX--Continued

325250098275301 - POSSUM KINGDOM LK SITE BR

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
MAR							
05...	1058	1.00	3090	8.50	12.5	10.5	104
05...	1100	10.0	3090	8.50	12.5	10.5	104
05...	1102	20.0	3090	8.50	12.0	10.5	102
05...	1104	30.0	3090	8.40	11.5	10.2	98
05...	1106	40.0	3090	8.40	10.5	9.8	92
05...	1108	50.0	3090	8.30	10.0	8.9	83
05...	1110	60.0	3090	8.20	10.0	8.8	82
MAY							
13...	1100	1.00	3130	8.40	24.5	7.7	97
13...	1102	10.0	3130	8.40	24.5	7.8	99
13...	1104	20.0	3130	8.40	23.0	7.9	97
13...	1106	30.0	3130	8.30	21.0	7.5	89
13...	1108	40.0	3210	7.90	18.5	6.7	75
13...	1110	50.0	3200	7.80	15.0	6.6	69
13...	1112	60.0	3190	7.70	14.0	6.4	65
AUG							
06...	1136	1.00	3140	8.30	30.0	7.6	--
06...	1138	10.0	3140	8.30	29.5	7.6	--
06...	1140	20.0	3180	8.20	29.0	7.1	--
06...	1142	30.0	3180	8.20	28.5	6.5	--
06...	1144	40.0	3260	7.40	26.5	0.3	4
06...	1146	50.0	3470	7.40	24.0	0.3	4
06...	1148	61.0	3550	7.40	23.0	0.3	4

325256098275301 - POSSUM KINGDOM LK SITE BC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
MAR							
05...	1034	1.00	3060	8.40	12.5	10.5	104
05...	1036	10.0	3060	8.40	12.0	10.5	102
05...	1038	20.0	3060	8.30	12.0	10.5	102
05...	1040	30.0	3050	8.30	11.5	10.1	97
05...	1042	40.0	3050	8.30	10.5	9.7	91
05...	1044	50.0	3050	8.30	10.5	9.4	89
05...	1046	60.0	3090	8.20	9.5	8.8	--
05...	1048	70.0	3180	8.00	9.5	7.3	--
05...	1050	80.0	3430	7.60	9.0	4.4	--
05...	1052	85.0	3480	7.60	9.0	3.8	--
MAY							
13...	1030	1.00	3150	8.40	24.5	7.7	97
13...	1032	10.0	3150	8.40	24.0	7.7	97
13...	1034	20.0	3140	8.40	23.0	7.9	97
13...	1036	30.0	3140	8.30	21.0	7.4	88
13...	1038	40.0	3210	7.90	18.0	6.6	74
13...	1040	50.0	3170	7.80	15.0	6.5	68
13...	1042	60.0	3190	7.70	13.5	6.4	65
13...	1044	70.0	3210	7.70	12.5	6.1	60
13...	1046	80.0	3250	7.70	12.0	5.4	53
13...	1048	89.0	3290	7.70	12.0	5.2	51
AUG							
06...	1108	1.00	3140	8.30	29.5	7.5	--
06...	1110	10.0	3140	8.30	29.5	7.5	--
06...	1112	20.0	3190	8.30	29.0	7.0	--
06...	1114	30.0	3190	8.20	28.5	6.5	--
06...	1116	40.0	3250	7.40	27.0	0.4	5
06...	1118	50.0	3490	7.40	24.0	0.2	3
06...	1120	60.0	3550	7.40	22.5	0.2	2
06...	1122	70.0	3620	7.40	21.0	0.2	2
06...	1124	80.0	3600	7.40	19.0	0.3	3
06...	1126	89.0	3540	7.40	18.0	0.3	3

POSSUM KINGDOM LAKE NEAR GRAFORD, TX--Continued

325129098311801 - POSSUM KINGDOM LK SITE CC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
MAR							
05...	0957	1.00	3030	8.40	12.5	10.5	104
05...	0959	10.0	3030	8.40	12.5	10.5	104
05...	1001	20.0	3040	8.30	12.0	10.5	102
05...	1003	30.0	3040	8.20	11.0	10.1	96
05...	1005	40.0	3070	8.10	10.0	9.3	87
05...	1007	50.0	3180	8.00	9.5	8.5	--
05...	1009	60.0	3260	8.00	9.0	8.0	--
05...	1011	73.0	3320	7.90	9.0	7.3	--
MAY							
13...	0946	1.00	3210	8.40	23.5	7.7	96
13...	0948	10.0	3210	8.40	23.0	7.9	97
13...	0950	20.0	3210	8.30	22.5	7.8	95
13...	0952	30.0	3210	8.20	21.5	7.4	88
13...	0954	40.0	3370	7.80	18.5	5.7	64
13...	0956	50.0	3330	7.70	15.5	5.2	55
13...	0958	60.0	3300	7.70	14.0	5.0	51
13...	1000	73.0	3290	7.70	13.0	4.8	48
AUG							
06...	1026	1.00	2660	8.30	29.0	6.7	--
06...	1028	10.0	2700	8.20	28.5	6.1	--
06...	1030	20.0	2750	8.20	28.5	6.1	--
06...	1032	30.0	3000	7.40	27.5	0.7	--
06...	1034	40.0	3220	7.40	26.0	0.2	3
06...	1036	50.0	3520	7.40	24.0	0.2	3
06...	1038	60.0	3650	7.40	22.5	0.2	2
06...	1040	70.0	3670	7.30	21.5	0.2	2
06...	1042	76.0	3690	7.30	20.5	0.2	2

325327098314001 - POSSUM KINGDOM LK SITE DC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	HARDNESS (MG/L AS CACO3)
MAR									
05...	0927	1.00	3040	8.50	12.0	3.10	10.6	103	470
05...	0929	10.0	3040	8.40	11.5	--	10.6	102	--
05...	0931	20.0	3040	8.40	11.5	--	10.4	100	--
05...	0933	30.0	3040	8.30	11.0	--	10.3	98	--
05...	0935	40.0	3060	8.20	10.0	--	9.5	88	--
05...	0937	50.0	3140	8.20	9.5	--	9.0	--	--
05...	0939	60.0	3340	8.10	9.5	--	8.0	--	--
05...	0941	68.0	3420	8.00	9.5	--	7.3	--	490
MAY									
13...	0910	1.00	3190	8.40	23.5	2.80	7.7	96	540
13...	0912	10.0	3190	8.40	23.0	--	7.7	95	--
13...	0914	20.0	3330	8.30	22.5	--	7.5	91	--
13...	0916	30.0	3450	8.20	22.0	--	7.1	86	--
13...	0918	40.0	3600	7.80	19.5	--	5.3	61	--
13...	0920	50.0	3380	7.70	15.0	--	4.5	47	--
13...	0922	60.0	3320	7.70	14.0	--	4.3	44	--
13...	0924	67.0	3320	7.70	14.0	--	4.3	44	630
AUG									
06...	0948	1.00	2640	8.30	29.0	1.50	6.7	--	390
06...	0950	10.0	2640	8.30	29.0	--	6.5	--	--
06...	0952	20.0	2660	8.20	28.5	--	6.4	--	--
06...	0954	30.0	2870	7.30	27.5	--	0.2	--	--
06...	0956	40.0	3170	7.30	26.0	--	0.2	3	--
06...	0958	50.0	3580	7.30	24.5	--	0.2	3	--
06...	1000	60.0	3750	7.30	23.0	--	0.2	2	--
06...	1002	68.0	3750	7.30	22.0	--	0.2	2	540

POSSUM KINGDOM LAKE NEAR GRAFORD, TX--Continued

325327098314001 - POSSUM KINGDOM LK SITE DC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)
MAR								
05...	370	130	35	440	9	7.5	98	420
05...	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--
05...	380	130	39	520	11	7.5	105	480
MAY								
13...	440	150	40	480	9	7.7	98	420
13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
13...	520	170	50	490	9	7.4	108	420
AUG								
06...	320	110	29	370	8	7.1	77	320
06...	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--
06...	410	150	39	530	10	8.4	130	410

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
MAR								
05...	720	6.0	1800	<0.10	0.2	0.01	30	10
05...	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--
05...	--	--	--	<0.10	0.4	0.01	10	<10
05...	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--
05...	820	5.7	2100	<0.10	0.7	0.02	30	20
MAY								
13...	730	5.4	1900	<0.10	0.3	<0.01	<10	10
13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
13...	--	--	--	<0.10	0.4	0.02	20	80
13...	--	--	--	0.10	0.4	<0.01	20	10
13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
13...	750	7.2	2000	0.30	0.4	0.01	30	410
AUG								
06...	590	6.4	1500	<0.10	0.5	0.02	10	<10
06...	--	--	--	--	--	--	--	--
06...	--	--	--	<0.10	0.5	0.02	20	100
06...	--	--	--	<0.10	0.5	0.03	20	20
06...	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--
06...	870	8.0	2100	<0.10	1.5	0.19	110	390

POSSUM KINGDOM LAKE NEAR GRAFORD, TX--Continued

325347098265701 - POSSUM KINGDOM LK SITE EC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
MAR							
05...	1402	1.00	3130	8.60	14.0	10.1	103
05...	1404	10.0	3130	8.60	14.0	10.1	103
05...	1406	20.0	3160	8.60	13.5	10.1	102
05...	1408	30.0	3210	8.50	12.5	9.6	95
05...	1410	40.0	3650	8.30	11.5	8.5	82
05...	1412	49.0	3650	8.10	12.0	7.5	73
MAY							
12...	1444	1.00	3570	8.40	25.5	7.9	102
12...	1446	10.0	3570	8.40	23.5	8.0	100
12...	1448	20.0	3650	8.20	23.0	6.8	84
12...	1450	30.0	3650	8.10	22.5	6.5	79
12...	1452	40.0	3700	7.70	21.0	4.4	52
12...	1454	48.0	3550	7.70	17.0	3.0	33
AUG							
06...	1522	1.00	2420	8.30	29.5	6.6	--
06...	1524	10.0	2420	8.20	29.0	6.3	--
06...	1526	20.0	2420	7.90	28.5	5.0	--
06...	1528	30.0	2600	7.30	27.5	0.7	--
06...	1530	40.0	2900	7.30	27.0	0.2	3
06...	1532	50.0	3330	7.20	25.5	0.2	3

325557098264401 - POSSUM KINGDOM LK SITE FC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
MAR							
05...	1430	1.00	3270	8.50	14.0	9.8	100
05...	1432	10.0	3270	8.50	14.0	9.8	100
05...	1434	20.0	3320	8.40	13.5	9.8	99
05...	1436	34.0	4250	8.20	13.0	7.0	70
MAY							
12...	1612	1.00	3690	8.40	26.0	8.0	104
12...	1614	10.0	3730	8.40	24.0	8.1	102
12...	1616	20.0	3820	8.10	23.0	6.9	85
12...	1618	30.0	4550	7.90	23.5	5.7	71
12...	1620	36.0	4690	7.90	23.5	5.7	71
AUG							
06...	1546	1.00	2390	8.40	30.0	7.4	--
06...	1548	10.0	2390	8.30	29.0	6.7	--
06...	1550	20.0	2390	8.00	29.0	5.5	--
06...	1552	30.0	2470	7.40	28.5	2.2	--
06...	1554	38.0	2720	7.20	27.5	0.2	--

325715098250501 - POSSUM KINGDOM LK SITE GC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	HARDNESS (MG/L AS CACO3)
MAR									
05...	1446	1.00	3510	8.50	14.0	1.10	9.7	99	560
05...	1448	10.0	3520	8.50	14.0	--	9.7	99	--
05...	1450	20.0	3530	8.50	14.0	--	9.7	99	--
05...	1452	26.0	3940	8.30	13.0	--	8.3	83	610
MAY									
12...	1536	1.00	3940	8.40	25.5	0.9	8.2	106	630
12...	1538	10.0	4160	8.40	24.5	--	8.0	102	--
12...	1540	20.0	4230	8.20	24.0	--	7.1	89	--
12...	1542	26.0	8160	7.80	25.0	--	5.1	66	950
AUG									
06...	1604	1.00	2440	8.40	30.0	0.7	7.9	--	380
06...	1606	10.0	2440	8.10	29.5	--	6.2	--	--
06...	1608	20.0	2460	7.60	29.0	--	3.5	--	--
06...	1610	28.0	2790	7.40	29.0	--	2.4	--	440

POSSUM KINGDOM LAKE NEAR GRAFORD, TX--Continued

325715098250501 - POSSUM KINGDOM LK SITE GC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)
MAR								
05...	460	160	40	520	10	7.6	102	490
05...	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--
05...	500	160	50	580	11	7.8	105	500
MAY								
12...	530	170	50	610	11	8.2	103	510
12...	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--
12...	840	270	68	1200	18	11	116	810
AUG								
06...	310	110	25	330	8	6.8	71	320
06...	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--
06...	360	130	27	380	8	7.0	71	360

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
MAR								
05...	850	5.0	2100	<0.10	0.3	0.02	30	10
05...	--	--	--	--	--	--	--	--
05...	--	--	--	<0.10	0.6	0.02	10	<10
05...	950	4.6	2300	<0.10	0.7	0.04	40	10
MAY								
12...	930	4.6	2300	<0.10	0.5	0.01	20	<10
12...	--	--	--	<0.10	0.6	0.03	30	10
12...	--	--	--	<0.10	0.5	0.03	20	30
12...	2000	6.5	4400	<0.10	0.9	0.10	30	160
AUG								
06...	500	7.9	1300	<0.10	0.7	0.04	80	10
06...	--	--	--	<0.10	0.6	0.03	10	20
06...	--	--	--	<0.10	0.6	0.04	<10	60
06...	620	8.7	1600	<0.10	0.6	0.04	10	100

325047098291201 - POSSUM KINGDOM LK SITE P03

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
MAR							
05...	1232	1.00	3070	8.50	13.5	10.2	103
05...	1234	10.0	3060	8.50	11.5	10.1	97
05...	1236	20.0	3060	8.30	11.0	9.6	91
05...	1238	30.0	3050	8.30	10.5	9.3	88
05...	1240	40.0	3070	8.20	10.5	8.8	83
05...	1242	50.0	3100	8.00	10.0	7.4	69
05...	1244	59.0	3230	7.80	10.0	6.0	56
MAY							
13...	1256	1.00	3170	8.40	24.5	7.7	97
13...	1258	10.0	3170	8.40	23.0	7.8	96
13...	1300	20.0	3170	8.40	23.0	7.7	95
13...	1302	30.0	3170	8.30	22.0	7.4	89
13...	1304	40.0	3240	7.70	18.5	5.4	61
13...	1306	50.0	3240	7.60	15.0	5.2	54
13...	1308	58.0	3240	7.60	14.5	4.9	51
AUG							
06...	1340	1.00	3020	8.20	30.0	6.6	--
06...	1342	10.0	3020	8.20	29.0	6.5	--
06...	1344	20.0	3020	7.80	28.5	4.7	--
06...	1346	30.0	3140	7.30	27.5	0.7	--
06...	1348	40.0	3260	7.30	26.5	0.2	3
06...	1350	50.0	3500	7.30	24.0	0.2	3
06...	1352	61.0	3530	7.30	23.0	0.2	2

POSSUM KINGDOM LAKE NEAR GRAFORD, TX--Continued

325125098323701 - POSSUM KINGDOM LK SITE P05

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
MAR							
05...	1307	1.00	3040	8.40	13.0	10.1	101
05...	1309	10.0	3040	8.30	12.0	9.8	96
05...	1311	20.0	3020	8.30	11.5	8.9	86
05...	1313	25.0	3020	8.20	12.0	8.6	84
MAY							
13...	1342	1.00	3200	8.40	24.0	7.9	99
13...	1344	10.0	3200	8.30	23.0	7.7	95
13...	1346	20.0	3200	8.10	23.0	7.1	87
13...	1348	25.0	3200	8.00	23.0	6.7	82
AUG							
06...	1420	1.00	2620	8.20	29.5	6.4	--
06...	1422	10.0	2620	7.90	28.5	4.7	--
06...	1424	20.0	2740	7.20	28.0	0.3	--
06...	1426	27.0	2890	7.20	28.0	0.2	--

325301098342901 - POSSUM KINGDOM LK SITE P07

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
MAR							
05...	1330	1.00	2980	8.40	13.5	10.3	104
05...	1332	10.0	2980	8.40	12.5	10.3	102
05...	1334	20.0	2980	8.40	12.0	10.0	97
05...	1336	30.0	3000	8.20	11.0	9.6	91
05...	1338	40.0	3030	8.10	10.5	8.6	81
05...	1340	50.0	3100	8.00	10.0	6.9	64
05...	1342	59.0	3170	7.80	9.5	5.3	--
MAY							
13...	1406	1.00	3200	8.40	25.5	7.7	99
13...	1408	10.0	3200	8.40	24.0	7.7	97
13...	1410	20.0	3190	8.40	23.5	7.6	94
13...	1412	30.0	3200	8.00	21.5	6.5	78
13...	1414	40.0	3220	7.60	18.0	4.7	52
13...	1416	50.0	3220	7.60	15.5	4.4	47
13...	1418	59.0	3260	7.60	15.0	4.4	46
AUG							
06...	1444	1.00	2590	8.30	30.5	7.1	--
06...	1446	10.0	2590	8.30	29.0	6.8	--
06...	1448	20.0	2590	8.00	29.0	5.2	--
06...	1450	30.0	2870	7.30	27.0	0.2	3
06...	1452	40.0	3020	7.30	26.0	0.2	3
06...	1454	51.0	3150	7.20	24.5	0.2	3

325915098243001 - POSSUM KINGDOM LK SITE P09

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
MAR							
05...	1508	1.00	3700	8.50	14.5	9.9	102
05...	1510	10.0	3700	8.50	14.5	9.8	101
05...	1512	20.0	3800	8.30	12.5	8.1	80
05...	1514	26.0	4560	8.10	12.5	6.1	60
MAY							
12...	1606	1.00	4030	8.40	25.5	8.5	110
12...	1608	10.0	4030	8.30	25.0	8.0	103
12...	1610	20.0	4060	8.10	23.5	6.3	79
12...	1612	27.0	6000	7.90	23.5	5.3	67
AUG							
06...	1626	1.00	2400	8.40	30.5	8.1	--
06...	1628	10.0	2400	8.20	30.0	6.7	--
06...	1630	20.0	2400	7.80	29.5	4.9	--
06...	1632	28.0	2550	7.20	28.5	0.3	--

POSSUM KINGDOM LAKE NEAR GRAFORD, TX--Continued

325725098280301 - POSSUM KINGDOM LK SITE P10

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	HARDNESS (MG/L AS CACO3)
MAR									
05...	1532	1.00	6130	8.50	17.0	0.4	9.2	101	750
05...	1534	4.00	6850	8.50	17.0	--	9.1	100	890
MAY									
12...	1700	1.00	1160	8.00	26.0	0.1	5.8	75	200
12...	1702	5.50	3890	8.10	25.5	--	6.2	80	610
AUG									
06...	1652	1.00	3220	8.70	29.5	0.3	10.4	--	470
06...	1654	5.50	4170	7.80	28.5	--	4.8	--	610

DATE	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)
MAR								
05...	640	190	68	930	15	9.2	110	750
05...	780	220	82	1200	18	9.8	111	880
MAY								
12...	130	57	14	200	6	5.8	74	110
12...	520	170	46	670	12	8.4	96	500
AUG								
06...	420	140	30	440	9	7.5	57	410
06...	550	180	40	640	12	8.3	68	510

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
MAR								
05...	1700	2.8	3700	<0.10	0.7	0.06	150	50
05...	2000	2.0	4500	<0.10	0.7	0.08	160	60
MAY								
12...	250	5.6	690	0.50	0.8	0.10	61	6
12...	1000	4.9	2500	0.20	0.7	0.07	20	30
AUG								
06...	710	9.0	1800	<0.10	1.0	0.08	10	20
06...	1000	10	2400	<0.10	0.9	0.09	10	100

08088600 BRAZOS RIVER AT MORRIS SHEPPARD DAM NEAR GRAFORD, TX

LOCATION.--Lat 32°52'00", long 98°26'00", Palo Pinto County, Hydrologic Unit 12060201, immediately below Morris Sheppard Dam (formerly Possum Kingdom Dam), 2.6 mi upstream from Loving Creek, 11.3 mi southwest of Graford, and 20 mi upstream from gaging station near Palo Pinto.

DRAINAGE AREA.--27,190 mi , of which 9,566 mi probably is noncontributing.

PERIOD OF RECORD.--Chemical analyses: May 1941 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1942 to current year.
WATER TEMPERATURES: October 1949 to September 1955, October 1965 to current year.

REMARKS.--Discharges are computed on the basis of releases from Possum Kingdom Lake. Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the Geological Survey District office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 6,110 microsiemens Feb. 20, 1961; minimum daily, 494 microsiemens May 4, 1957.
WATER TEMPERATURES (1949-55, 1965-85): Maximum daily, 28.0°C Aug. 19, Sept. 1, 28, 1983, and June 19, 20, 1984; minimum daily, 6.5°C Jan. 20, 1978.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,360 microsiemens Aug., 15, 16, 24-26; minimum daily, 3,000 microsiemens on several days during year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT									
02...	1400	25	3180	20.0	560	450	160	39	470
NOV									
14...	0920	185	3010	--	500	390	140	36	440
DEC									
17...	1400	343	3020	--	510	410	150	32	430
MAR									
18...	1300	449	3170	--	530	430	150	37	470
MAY									
06...	1215	115	3200	--	500	410	140	37	500
JUN									
24...	1400	1970	3230	--	540	430	150	40	450
AUG									
13...	1230	405	3350	--	560	460	160	40	510

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT								
02...	9	7.0	112	390	770	0.4	5.8	1900
NOV								
14...	9	8.1	103	410	700	0.4	6.1	1800
DEC								
17...	9	7.8	100	380	700	0.4	5.6	1800
MAR								
18...	9	7.2	98	390	740	0.4	5.2	1900
MAY								
06...	10	7.6	95	390	740	0.4	4.4	1900
JUN								
24...	9	7.6	107	420	740	0.4	5.8	1900
AUG								
13...	10	8.1	109	440	770	0.4	6.2	2000

08088600 BRAZOS RIVER AT MORRIS SHEPPARD DAM NEAR GRAFORD, TX--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR OCTOBER 1985 TO SEPTEMBER 1986

MONTH	YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-MHOS)	DIS-SOLVED SOLIDS (MG/L)	DIS-SOLVED SOLIDS (TONS)	DIS-SOLVED CHLORIDE (MG/L)	DIS-SOLVED CHLORIDE (TONS)	DIS-SOLVED SULFATE (MG/L)	DIS-SOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT.	1985	17547	3030	1780	84100	710	33500	360	17200	520
NOV.	1985	11649	3020	1770	55700	710	22200	360	11400	520
DEC.	1985	5824	3020	1770	27900	710	11100	360	5710	520
JAN.	1986	8871	3020	1770	42500	710	16900	360	8700	520
FEB.	1986	4916	3060	1800	23900	720	9520	370	4890	520
MAR.	1986	6635	3090	1820	32500	730	13000	370	6660	530
APR.	1986	2480	3070	1810	12100	720	4830	370	2480	520
MAY	1986	2244	3170	1860	11300	750	4530	380	2310	540
JUNE	1986	53822	3150	1850	269000	740	107800	380	55100	530
JULY	1986	32979	3200	1880	168000	760	67400	390	34400	540
AUG.	1986	9441	3340	1970	50300	800	20300	410	10300	560
SEPT	1986	42989	3330	1960	228000	790	92100	400	46800	560
TOTAL		199397	**	**	1005000	**	403000	**	206000	**
WTD.AVG.		546	3170	1870	**	750	**	380	**	540

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
EQUIVALENT MEAN

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3140	3020	3040	3000	3050	3080	3060	3100	3130	3170	3300	3340
2	3140	3020	3030	3000	3050	3090	3070	3100	3110	3170	3310	3350
3	3120	3030	3030	3010	3050	3090	3090	3140	3120	3170	3310	3350
4	3120	3030	3030	3010	3050	3080	3080	3160	3110	3180	3320	3350
5	3120	3020	3020	3000	3060	3090	3080	3200	3130	3190	3330	3340
6	3100	3030	3020	3000	3060	3090	3080	3200	3130	3190	3330	3340
7	3090	3020	3010	3010	3060	3090	3090	3200	3130	3190	3330	3340
8	3050	3020	3010	3020	3060	3080	3090	3200	3130	3180	3340	3340
9	3020	3020	3040	3010	3050	3100	3070	3190	3150	3180	3340	3340
10	3060	3020	3040	3010	3050	3090	3060	3180	3160	3190	3340	3330
11	3050	3010	3030	3010	3050	3090	3060	3180	3150	3190	3340	3340
12	3070	3010	3030	3020	3050	3090	3060	3180	3150	3200	3350	3330
13	3060	3010	3030	3020	3060	3090	3070	3170	3150	3200	3350	3330
14	3060	3010	3020	3020	3060	3090	3070	3160	3160	3200	3350	3330
15	3060	3010	3030	3020	3080	3090	3070	3160	3160	3190	3360	3330
16	3060	3000	3020	3030	3070	3090	3070	3160	3160	3190	3360	3320
17	3070	3000	3020	3030	3070	3100	3080	3170	3170	3200	3350	3320
18	3050	3010	3000	3030	3060	3100	3070	3160	3160	3210	3350	3330
19	3030	3010	3000	3040	3070	3090	3070	3150	3150	3210	3340	3330
20	3020	3010	3000	3030	3060	3080	3080	3150	3160	3210	3350	3330
21	3030	3020	3000	3030	3060	3080	3070	3150	3150	3220	3350	3320
22	3030	3020	3010	3040	3070	3090	3080	3150	3160	3240	3350	3320
23	3030	3020	3010	3040	3060	3090	3090	3140	3180	3240	3350	3320
24	3010	3020	3010	3040	3060	3090	3090	3140	3160	3250	3360	3320
25	3020	3030	3020	3040	3060	3090	3080	3140	3160	3260	3360	3320
26	3000	3030	3020	3040	3070	3100	3100	3140	3140	3280	3360	3310
27	3020	3030	3010	3030	3070	3100	3080	3140	3140	3270	3350	3310
28	3020	3030	3010	3030	3070	3090	3090	3140	3150	3280	3340	3320
29	3020	3040	3000	3030	---	3110	3080	3130	3160	3280	3340	3310
30	3010	3040	3000	3040	---	3090	3080	3130	3170	3290	3340	3310
31	3020	---	3000	3040	---	3100	---	3130	---	3290	3340	---
MEAN	3050	3020	3020	3020	3060	3090	3080	3160	3150	3220	3340	3330

08088600 BRAZOS RIVER AT MORRIS SHEPPARD DAM NEAR GRAFORD, TX--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---		---	---	---	14.0	17.0		22.0			
2	---		---	---	---	14.0	18.0		22.0			
3	---		---	---	---	15.0	15.0		21.0			
4	---		---	---	---	22.0	19.0		22.0			
5	---		---	---	---	15.0	---		21.0			
6	---		20.0	---	---	13.0	15.0		---			
7	23.0		---	---	---	16.0	17.0		22.0			
8	---		---	9.0	---	15.0	17.0		22.0			
9	21.0		23.0	---	---	15.0	---		23.0			
10	26.0		---	---	---	12.0	---		23.0			
11	26.0		---	---	---	19.0	---		23.0			
12	24.0		---	---	11.0	---	17.0		---			
13	24.0		18.0	---	12.0	19.0	17.0		---			
14	---		---	---	---	18.0	17.0		23.0			
15	---		14.0	---	9.0	14.0	17.0		25.0			
16	24.0		---	---	10.0	15.0	18.0		25.0			
17	26.0		14.0	---	10.0	14.0	19.0		24.0			
18	23.0		15.0	---	10.0	15.0	20.0		24.0			
19	23.0		---	---	11.0	15.0	16.0		23.0			
20	22.0		---	---	---	15.0	19.0		25.0			
21	22.0		---	---	---	---	19.0		24.0			
22	26.0		---	---	11.0	15.0	19.0		24.0			
23	25.0		---	---	14.0	---	19.0		24.0			
24	28.0		---	---	14.0	---	19.0		24.0			
25	26.0		---	---	13.0	19.0	17.0		24.0			
26	23.0		---	---	14.0	18.0	19.0		25.0			
27	22.0		---	---	12.0	15.0	19.0		---			
28	22.0		---	---	12.0	19.0	20.0		---			
29	22.0		---	---	---	17.0	20.0		25.0			
30	22.0		---	---	---	17.0	20.0		25.0			
31	22.0		---	---	---	19.0	---		---			
MEAN	23.5		17.5	9.0	11.5	16.0	18.0		23.5			

08089000 BRAZOS RIVER NEAR PALO PINTO, TX

LOCATION.--Lat 32°51'45", long 98°18'08", Palo Pinto County, Hydrologic Unit 12060201, on right bank 100 ft upstream from bridge on Farm Road 4, 300 ft downstream from Dark Valley Creek, 6.5 mi north of Palo Pinto, and at mile 667.3.

DRAINAGE AREA.--23,811 mi^2, of which 9,566 mi^2 probably is noncontributing.

PERIOD OF RECORD.--January 1924 to current year. Monthly discharge only for some periods, published in WSP 1312. Published as "near Mineral Wells" 1924-33.

REVISED RECORDS.--WSP 1512: 1924-25, 1929, 1932-34. WSP 1712: 1935-36, 1937-38(M), 1939, 1940(M). WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 831.23 ft above National Geodetic Vertical datum of 1929. Prior to Nov. 15, 1933, nonrecording gage at site 19 mi downstream at datum 38.19 ft lower.

REMARKS.--Estimated daily discharge: Aug. 4-12. Records good except those for estimated daily discharges, which are poor. Since 1941, flow largely regulated by Possum Kingdom Lake (station 08088500) 20 mi upstream. There were several observations of water temperature were made during the water year.

AVERAGE DISCHARGE.--16 years (water years 1925-40) prior to completion of Possum Kingdom Lake, 1,262 ft^3/s (914,300 acre-ft/yr); 46 years (water years 1941-86) regulated, 911 ft^3/s (660,000 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 95,600 ft^3/s June 16, 1930, at site 19 mi downstream from Mineral Wells (gage height, 30 ft, present site and datum); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage occurred in 1876, from data by U.S. Army Corps of Engineers, and was several feet higher than the flood of June 16, 1930, which reached a stage of about 30 ft and was the highest since at least 1876.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,700 ft^3/s June 9 at 0200 hours (gage height, 9.54 ft); minimum daily, 17 ft^3/s Apr. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	269	72	55	95	284	151	74	69	144	115	1980
2	45	800	353	709	82	615	145	51	79	85	499	396
3	38	109	186	433	128	399	52	37	76	146	119	1030
4	31	406	60	217	123	788	32	33	112	243	173	1120
5	31	874	146	111	98	370	22	27	1320	2660	71	2600
6	29	843	216	282	540	257	17	33	2040	4760	206	2640
7	28	338	64	249	411	306	37	73	2880	4180	62	1780
8	24	301	43	221	969	258	70	68	6000	2760	454	2690
9	190	597	42	256	326	82	36	42	6160	2020	557	2730
10	101	111	44	353	98	56	28	40	2830	1770	447	2740
11	45	712	709	210	115	62	26	524	2870	1130	68	2740
12	33	794	845	191	215	62	34	107	2830	515	64	2730
13	452	387	423	188	82	71	33	461	2930	962	659	2210
14	96	307	500	323	68	62	25	101	2770	910	437	2740
15	44	589	240	469	71	114	27	53	2840	886	98	1730
16	33	798	219	132	68	256	25	41	2770	144	710	1100
17	31	216	347	159	68	313	26	57	2170	78	566	116
18	108	72	301	431	65	95	30	79	1290	737	102	85
19	662	48	248	736	68	604	113	56	1080	502	758	1340
20	738	267	174	321	71	557	262	42	692	645	694	964
21	1670	192	66	317	386	95	454	38	1030	1240	899	1480
22	1680	363	52	471	354	128	492	35	826	733	121	681
23	1850	99	169	600	93	65	79	34	746	210	59	669
24	1660	49	92	219	68	43	48	36	1730	832	46	666
25	1520	40	55	187	199	92	39	43	917	594	41	665
26	1160	242	50	78	600	217	37	55	458	785	38	683
27	885	418	49	112	98	71	37	86	630	129	775	853
28	141	173	51	475	102	143	35	72	641	65	107	683
29	601	58	51	206	---	60	149	61	160	676	53	314
30	245	41	52	192	---	39	74	241	496	772	41	74
31	259	---	52	241	---	34	---	82	---	640	38	---
TOTAL	14504	10513	5971	9144	5661	6598	2635	2782	51442	31953	9077	42229
MEAN	468	350	193	295	202	213	87.8	89.7	1715	1031	293	1408
MAX	1850	874	845	736	969	788	492	524	6160	4760	899	2740
MIN	24	40	42	55	65	34	17	27	69	65	38	74
AC-FT	28770	20850	11840	18140	11230	13090	5230	5520	102000	63380	18000	83760

CAL YR 1985 TOTAL 287260 MEAN 787 MAX 8490 MIN 24 AC-FT 569800
WTR YR 1986 TOTAL 192509 MEAN 527 MAX 6160 MIN 17 AC-FT 381800

08090800 BRAZOS RIVER NEAR DENNIS, TX

LOCATION.--Lat 32°36'56", long 97°55'32", Parker County, Hydrologic Unit 12060201, on right bank at downstream side of highway embankment of bridge on Farm Road 1543, 0.2 mi south of Dennis, 1.0 mi upstream from Patrick Creek, and at mile 589.98.

DRAINAGE AREA.--25,237 mi^2, of which 9,566 mi^2 probably is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1968 to current year.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 697.67 ft above National Geodetic Vertical Datum of 1929 (State Department of Highways and Public Transporation bench marks).

REMARKS.--No estimated daily discharges. Records good. Flow is largely regulated by releases from Possum Kingdom Lake (station 08088500) and Lake Palo Pinto (station 08090300). Flow is affected at times by discharge from the flood-detention pools of twelve floodwater-retarding structures with a combined detention capacity of 13,840 acre-ft. These structures control runoff from 53.0 mi^2 in the East Keechi and Pollard Creeks drainage basins. There are many diversions above station for irrigation, municipal supply, and oilfield operations. Gage-height telemeter at station.

AVERAGE DISCHARGE.--18 years (water years 1969-86), 939 ft^3/s (680,300 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 96,600 ft^3/s Oct. 14, 1981 (gage height, 31.85 ft, from floodmarks); minimum, 0.87 ft^3/s Aug. 2, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1930, 31.8 ft in May 1957, from floodmark, from information by State Department of Highways and Public Transportation.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,670 ft^3/s June 10 at 0300 hours (gage height, 11.98 ft); minimum daily, 13 ft^3/s Apr 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	443	490	270	46	198	234	82	66	319	304	615	219
2	246	316	184	45	225	132	62	60	727	383	520	959
3	198	670	102	49	4600	127	56	56	515	619	410	1480
4	116	624	167	293	1850	503	78	88	544	728	433	713
5	78	296	440	521	472	421	127	99	2220	599	232	1200
6	72	305	290	357	539	726	108	79	3690	1190	117	1630
7	43	1220	199	217	455	443	75	68	3580	2950	103	2520
8	31	627	200	127	533	291	49	59	3220	4400	70	2210
9	30	404	186	225	715	256	46	51	4380	2690	91	2160
10	33	502	118	250	939	335	46	54	6370	2280	552	2620
11	36	590	93	221	503	180	28	60	3290	1950	567	2670
12	53	293	68	328	250	138	49	89	3250	1760	552	2690
13	103	677	572	347	191	110	60	161	3010	696	441	2690
14	69	835	609	195	147	88	49	204	2920	830	257	2410
15	129	533	430	157	177	86	43	248	2960	917	469	2460
16	202	490	584	268	141	88	34	218	2930	851	438	2220
17	135	895	421	533	113	73	22	281	2860	576	255	1860
18	314	705	224	291	86	82	14	886	2530	254	538	713
19	1980	465	362	170	75	352	13	482	2130	139	513	373
20	4990	263	408	333	67	234	69	231	1450	452	246	476
21	2000	242	323	610	62	416	98	135	878	460	565	1220
22	1340	202	234	388	55	443	277	102	1120	599	753	1010
23	1950	345	167	455	60	210	328	79	1000	1100	654	1060
24	1870	503	124	467	338	144	467	63	897	485	295	672
25	1930	323	73	637	195	93	242	74	1200	342	95	665
26	1870	211	75	388	121	95	86	105	1560	510	100	672
27	1730	196	127	231	93	75	56	718	764	571	91	679
28	1380	132	88	160	383	73	66	491	577	504	53	815
29	683	371	73	129	---	132	62	245	646	196	409	829
30	360	410	67	226	---	103	56	221	600	108	229	577
31	661	---	58	328	---	103	---	233	---	465	118	---
TOTAL	25075	14135	7336	8992	13583	6786	2848	6006	62137	29908	10781	42472
MEAN	809	471	237	290	485	219	94.9	194	2071	965	348	1416
MAX	4990	1220	609	637	4600	726	467	886	6370	4400	753	2690
MIN	30	132	58	45	55	73	13	51	319	108	53	219
AC-FT	49740	28040	14550	17840	26940	13460	5650	11910	123200	59320	21380	84240

CAL YR 1985 TOTAL 371182 MEAN 1017 MAX 8890 MIN 30 AC-FT 736200
WTR YR 1986 TOTAL 230059 MEAN 630 MAX 6370 MIN 13 AC-FT 456300

08090800 BRAZOS RIVER NEAR DENNIS, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: October 1970 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1970 to current year.
WATER TEMPERTURES: October 1970 to current year.

REMARKS.--Mean monthly and annual concentratiions and loads for selected chemical constituents have been computed using the daily (or continuous) records of speciific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the Geological Survey District office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 5,410 microsiemens Apr. 18, 1984; minimum daily, 200 microsiemens Oct. 13, 1981.
WATER TEMPERATURES: Maximum daily, 38.5°C July 26, 1976; minimum daily, 0.0°C on many days during winter months 1977-79.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,510 microsiemens Aug. 31; minimum daily, 320 microsiemens Feb. 3.
WATER TEMPERATURES: Maximum daily, 35.0°C June 29, July 30, 31, Aug. 1; minimum daily, 5.0°C Feb. 10.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
JAN 30...	1500	226	3210	760	650	250	33	440
MAR 19...	1343	350	2790	400	320	110	31	420
MAY 07...	1244	70	2620	370	280	100	30	390
JUN 26...	1330	1560	3180	540	430	150	40	450
AUG 20...	1340	246	3330	480	380	130	37	510

DATE	SODIUM AD-SORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
JAN 30...	7	7.3	115	420	780	0.4	2.8	2000
MAR 19...	9	7.4	83	340	620	0.4	0.7	1600
MAY 07...	9	8.3	90	320	580	0.4	1.5	1500
JUN 26...	9	7.6	107	420	710	0.4	4.6	1800
AUG 20...	11	7.8	94	440	790	0.4	5.5	2000

MONTHLY AND ANNUAL MEANS AND LOADS FOR OCTOBER 1985 TO SEPTEMBER 1986

MONTH YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	DISSOLVED SOLIDS (MG/L)	DISSOLVED SOLIDS (TONS)	DISSOLVED CHLORIDE (MG/L)	DISSOLVED CHLORIDE (TONS)	DISSOLVED SULFATE (MG/L)	DISSOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT. 1985	25075	1940	1130	76700	450	30200	230	15400	340
NOV. 1985	14135	3000	1750	66900	700	26800	350	13400	520
DEC. 1985	7336	2840	1660	32900	660	13100	330	6590	490
JAN. 1986	8992	3180	1860	45200	750	18200	370	9050	540
FEB. 1986	13583	1480	867	31800	340	12400	170	6380	270
MAR. 1986	6786	3160	1850	33900	740	13600	370	6770	540
APR. 1986	2848	2770	1620	12500	640	4950	320	2500	480
MAY 1986	6006	1730	1010	16400	390	6330	200	3290	320
JUNE 1986	62137	2580	1510	253000	600	101100	300	50700	450
JULY 1986	29908	3180	1860	150000	750	60700	370	30100	540
AUG. 1986	10781	3260	1910	55500	770	22400	380	11100	550
SEPT 1986	42472	3090	1810	207000	730	83800	360	41400	520
TOTAL	230059	**	**	982000	**	394000	**	197000	**
WTD.AVG.	630	2700	1580	**	630	**	320	**	470

08090800 BRAZOS RIVER NEAR DENNIS, TX--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
EQUIVALENT MEAN

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3030	2850	2900	2960	3250	3280	3120	2550	858	3200	3420	2560
2	3100	2860	2880	2940	3240	3300	3150	2600	779	3190	3470	1990
3	3120	2960	2900	2960	320	3270	3160	2550	1400	2840	3300	447
4	3160	3010	2880	2990	805	3290	3120	2170	1380	867	3150	1350
5	3110	2980	2950	3080	1460	3320	2680	2450	462	2790	2990	608
6	3100	2960	2920	3110	1210	3340	2920	2720	490	2370	3070	2260
7	3090	3040	2950	3080	1100	3320	2960	2660	858	3180	3030	3300
8	3040	3100	2940	3110	1740	3300	2970	2620	1970	3210	3000	3330
9	3020	3060	2960	3100	2340	3250	3030	2680	2770	3250	2730	3350
10	3010	3050	2930	3120	2710	3260	2990	2470	3110	3290	2880	3370
11	3000	3060	2670	3140	2840	3230	3000	2640	2640	3310	3160	3380
12	2980	3050	2700	3160	2850	3210	2750	2550	3010	3300	2810	3390
13	2770	3050	1830	3180	2800	3190	2760	2700	3030	3330	3170	3380
14	3100	3070	2450	3190	2780	3120	2910	2720	3220	3300	3270	3370
15	3000	3050	3060	3180	2800	2950	3030	2850	3120	3370	3340	3390
16	2850	3080	3040	3170	2900	2860	3090	3030	3160	3380	3090	3380
17	3120	3040	3030	3190	2830	2900	3080	2370	3170	3370	3100	3400
18	2560	3050	2940	3200	2820	2870	3010	1640	3200	3340	2960	3390
19	1030	3040	3000	3210	2810	2760	2990	1400	3210	3280	3350	3370
20	560	3020	3020	3200	2800	2890	2460	1080	2950	3380	3400	3360
21	637	3030	3030	3250	2820	2920	2360	1130	3080	3400	3450	3400
22	629	2960	3020	3220	2890	2980	2620	1330	3140	3420	3500	3420
23	2070	2920	3010	3250	2830	3130	2850	1740	3200	3430	3490	3410
24	2870	2900	3000	3240	2750	3120	2550	1970	3240	3400	3470	3420
25	2890	2920	3010	3250	3080	3060	2670	1870	3280	3390	3460	3430
26	2980	2800	2990	3270	3040	3070	2760	1910	3340	3420	3440	3420
27	2960	2790	2970	3240	3010	3100	2820	830	3290	3440	3380	3420
28	2970	2720	2990	3250	3180	3070	2840	712	3290	3450	3370	3440
29	2930	2820	2960	3250	---	3090	2720	1260	3320	3420	3350	3410
30	2890	2850	2950	3230	---	3170	2810	1700	3340	3390	3460	3390
31	2900	---	2930	3250	---	3130	---	1590	---	3470	3510	---
MEAN	2660	2970	2900	3160	2500	3120	2870	2080	2580	3200	3240	3020

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	16.0	9.0	10.0	16.0	15.0	24.0	24.0	24.0	30.0	35.0	---
2	20.0	16.0	7.0	13.0	17.0	18.0	24.0	25.0	24.0	32.0	31.0	25.0
3	23.0	17.0	7.0	12.0	17.0	16.0	22.0	23.0	30.0	28.0	---	27.0
4	22.0	18.0	11.0	11.0	18.0	18.0	27.0	27.0	30.0	32.0	29.0	29.0
5	22.0	18.0	11.0	9.0	14.0	19.0	25.0	25.0	25.0	31.0	32.0	27.0
6	22.0	18.0	12.0	10.0	14.0	19.0	---	31.0	26.0	30.0	31.0	26.0
7	24.0	17.0	13.0	---	11.0	19.0	---	26.0	27.0	29.0	32.0	25.0
8	21.0	17.0	13.0	6.0	---	20.0	---	25.0	26.0	28.0	31.0	24.0
9	23.0	20.0	16.0	8.0	10.0	23.0	---	28.0	26.0	---	32.0	25.0
10	22.0	18.0	12.0	8.0	5.0	21.0	---	23.0	25.0	29.0	30.0	26.0
11	24.0	15.0	7.0	8.0	7.0	18.0	---	32.0	26.0	29.0	29.0	25.0
12	28.0	19.0	6.0	10.0	6.0	21.0	24.0	32.0	26.0	30.0	31.0	26.0
13	27.0	20.0	---	10.0	8.0	18.0	28.0	31.0	27.0	30.0	31.0	26.0
14	25.0	21.0	7.0	11.0	12.0	20.0	25.0	28.0	26.0	30.0	32.0	27.0
15	21.0	16.0	7.0	12.0	11.0	21.0	27.0	27.0	26.0	31.0	32.0	28.0
16	22.0	---	8.0	14.0	17.0	22.0	25.0	26.0	25.0	31.0	33.0	28.0
17	22.0	17.0	9.0	15.0	19.0	20.0	24.0	21.0	25.0	32.0	34.0	28.0
18	22.0	21.0	8.0	15.0	19.0	21.0	28.0	20.0	26.0	34.0	31.0	30.0
19	22.0	20.0	9.0	15.0	22.0	18.0	23.0	25.0	27.0	34.0	34.0	30.0
20	20.0	15.0	8.0	16.0	21.0	17.0	24.0	22.0	29.0	34.0	29.0	27.0
21	21.0	12.0	9.0	15.0	15.0	---	25.0	29.0	32.0	33.0	29.0	30.0
22	19.0	14.0	11.0	12.0	13.0	17.0	24.0	24.0	27.0	32.0	29.0	29.0
23	20.0	16.0	12.0	11.0	19.0	21.0	25.0	30.0	33.0	33.0	29.0	29.0
24	21.0	15.0	11.0	14.0	18.0	21.0	---	28.0	34.0	32.0	30.0	28.0
25	24.0	18.0	7.0	12.0	19.0	21.0	27.0	28.0	33.0	34.0	30.0	28.0
26	23.0	20.0	11.0	11.0	22.0	23.0	26.0	27.0	30.0	34.0	28.0	28.0
27	---	14.0	9.0	10.0	18.0	24.0	25.0	25.0	33.0	33.0	30.0	28.0
28	20.0	12.0	8.0	7.0	15.0	25.0	27.0	27.0	34.0	33.0	27.0	29.0
29	15.0	10.0	12.0	14.0	---	24.0	26.0	29.0	35.0	34.0	23.0	28.0
30	17.0	12.0	14.0	13.0	---	25.0	29.0	27.0	32.0	35.0	24.0	26.0
31	17.0	---	13.0	12.0	---	25.0	---	25.0	---	35.0	26.0	---
MEAN	21.5	16.5	10.0	11.5	15.0	20.5	25.5	26.5	28.5	31.5	30.0	27.5

08090900 LAKE GRANBURY NEAR GRANBURY, TX

LOCATION.--Lat 32°22'27", long 97°41'20", Hood County, Hydrologic Unit 12060201, at right end of spillway of DeCordova Bend Dam on Brazos River, 2.6 mi upstream from Fall Creek, 7.5 mi southeast of Granbury, and at mile 542.5.

DRAINAGE AREA.--25,679 mi², of which 9,566 mi² probably is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1968 to current year.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE (revised).--Water-stage recorder. Datum of gage is 1.11 ft below National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). The revised datum applies to all records for period of record.

REMARKS.--The lake is formed by an Ambursen-type concrete and earthfill dam 2,256 ft long, including a 932-foot concrete spillway. The dam was completed on Aug. 30, 1969, and deliberate impoundment began Sept. 15, 1969. The spillway consists of sixteen 36- by 35-foot tainter gates and two 7- by 8-foot sluice gates. The outflow from the sluice gates discharges into a bay where it is then controlled by two 4- by 4.5-foot sluice gates with inverts at 625.8 ft. Stage telemeter at station. Flow is affected at times by discharge from the flood-detention pools of 12 floodwater-retarding structures with a combined detention capacity of 13,940 acre-ft. These structures control runoff from 53.9 mi² in the East Keechi, Kickapoo, and Ruckers Creeks drainage basins. The lake was built by the Brazos River Authority for the conservation of water for irrigation, municipal, and industrial uses. Water is diverted from the lake for municipal, domestic, irrigation, and industrial uses by several lakeside developers, or residents. Water is also diverted into Squaw Creek Reservoir. The city of Granbury returns sewage effluent into Lake Granbury. Figures given herein represent total contents. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	706.5	-
Top of tainter gates (design flood)	693.0	153,500
Crest of spillway	658.0	15,440
Lowest gated outlet (invert)	640.0	2,200

COOPERATION.--The capacity curve, based on data prepared by the Ambursen Engineering Corporation, was provided by the U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 158,800 acre-ft Mar. 27, 1977 (elevation, 693.60 ft); minimum since first filling in October 1969, 97,600 acre-ft Aug. 9, 1978 (elevation, 685.28 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 152,800 acre-ft Sept. 1 at 1530 hours (elevation, 692.92 ft); minimum, 145,000 acre-ft June 11 (elevation, 692.00 ft).

Capacity table (elevation, in feet, and contents, in acre-feet)

690.2	145,000
693.0	153,500

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	147800	149500	149200	149600	150200	150000	150000	149400	149700	149400	150100	148800
2	148000	149400	149000	149800	150500	150000	148800	149400	148500	150200	150000	150100
3	148100	149400	148800	149700	151100	149300	150500	149400	148800	149600	150700	150300
4	148300	150000	149300	149200	147800	149200	150100	149400	148800	148200	149600	149400
5	148300	149900	149500	149500	148700	149400	149800	149500	149400	147400	149600	149600
6	148000	149800	149700	150300	149400	149700	149800	149700	150300	147700	149900	149300
7	147600	151000	150200	150400	150200	150000	149900	149800	148800	147900	149900	149900
8	147200	151000	150200	149900	149600	149800	150000	150900	148900	148300	149900	147200
9	147700	150300	150500	150000	149800	149800	150000	150600	145400	150600	149900	145700
10	147700	150900	150000	150400	150200	150000	149600	149400	145700	149800	150700	146200
11	147500	151100	148800	149800	149500	149400	149400	149400	146800	148400	150200	146700
12	147500	150300	149000	149600	149400	150100	149600	149600	148300	148700	149900	146900
13	147600	149700	149200	150000	149600	150200	149200	149600	148200	147200	150000	147500
14	148300	150600	150400	150400	150200	149800	149200	149200	148800	147800	149700	147500
15	147800	149700	150900	150000	150000	149900	149400	149700	150100	148700	149700	147400
16	147900	149400	151000	149800	150400	149400	149200	149300	149800	148700	149800	147500
17	148800	150600	150100	150000	150200	148800	148600	149200	149300	149300	149700	147200
18	146700	150100	149300	149900	150300	150300	149000	149400	148900	149400	149800	147200
19	148800	149100	149900	149300	150300	149700	149600	149400	149400	149500	149900	147800
20	149400	148400	149300	149400	150200	150000	149400	150000	148700	149300	149700	148300
21	147400	148700	149300	150000	149600	149500	149500	150000	148200	149700	149500	150500
22	148200	148800	149900	149200	149400	149400	149400	150000	148800	149600	149500	150300
23	149300	149300	150400	149700	149500	149400	149800	150100	149100	150100	150100	149600
24	149200	149600	150600	149900	150000	150200	150000	150300	149000	149500	150000	148800
25	150300	150100	150200	150600	149800	150100	149400	149900	149100	149100	149500	148200
26	150800	150600	150200	150600	149700	150000	149200	150300	149500	149400	149600	147900
27	150900	149000	150500	150100	149400	150000	149900	150200	148300	149500	149600	147500
28	149900	148900	150500	150000	149700	150100	149700	149500	147600	150000	149300	147600
29	149200	149300	150500	149700	---	150200	149000	150000	147900	149800	149500	148000
30	148300	151200	150600	149300	---	150000	149400	149400	148800	149300	149700	149200
31	148300	---	150300	149900	---	150100	---	150100	---	150200	149700	---
MAX	150900	151200	151000	150600	151100	150300	150500	150900	150300	150600	150700	150500
MIN	146700	148400	148800	149200	147800	148800	148600	149200	145400	147200	149300	145700
(†)	692.39	692.73	692.63	692.58	692.56	692.61	692.53	692.61	692.46	692.62	692.56	692.50
(ϕ)	+800	+2900	-900	-400	-200	+400	-700	+700	-1300	+1400	-500	-500

CAL YR 1985 MAX 151300 MIN 143100 (ϕ) -400
WTR YR 1986 MAX 151200 MIN 145400 (ϕ) +1700

(†) Elevation, in feet, at end of month.
(ϕ) Change in contents, in acre-feet.

08090900 LAKE GRANBURY NEAR GRANBURY, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: September 1970 to current year.

322227097412101 - LAKE GRANBURY SITE AC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CACO3)
FEB									
04...	1150	1.00	2680	8.60	13.0	1.20	10.7	106	430
04...	1152	10.0	2690	8.50	13.0	--	10.4	103	--
04...	1154	20.0	2700	8.50	12.5	--	9.9	97	--
04...	1156	30.0	2700	8.40	12.0	--	9.4	91	--
04...	1158	40.0	2700	8.20	11.5	--	8.0	77	--
04...	1200	50.0	2710	7.80	10.5	--	6.2	58	--
04...	1202	64.0	2710	7.70	10.5	--	4.1	38	460
MAY									
08...	0925	1.00	2600	8.10	21.5	1.30	7.3	87	450
08...	0927	10.0	2620	8.00	21.5	--	7.2	85	--
08...	0929	20.0	2620	7.90	21.0	--	6.4	75	--
08...	0931	30.0	2620	7.60	20.0	--	4.7	54	--
08...	0933	40.0	2650	7.50	18.5	--	3.2	36	--
08...	0935	45.0	2650	7.40	18.0	--	2.1	23	--
08...	0937	50.0	2650	7.40	17.0	--	1.3	14	--
08...	0939	62.0	2670	7.40	16.5	--	1.2	13	420
AUG									
05...	1020	1.00	2290	8.20	30.0	1.60	6.4	--	360
05...	1022	10.0	2290	8.10	29.5	--	6.2	--	--
05...	1024	20.0	2290	8.10	29.5	--	6.2	--	--
05...	1026	25.0	2440	7.30	29.0	--	0.2	--	--
05...	1028	30.0	2520	7.30	28.5	--	0.2	--	--
05...	1030	40.0	2800	7.30	28.0	--	0.2	--	--
05...	1032	50.0	2800	7.30	27.5	--	0.2	--	--
05...	1034	60.0	2660	7.20	23.0	--	0.2	2	--
05...	1036	64.0	2660	7.10	22.0	--	0.2	2	420

DATE	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
FEB									
04...	330	120	31	400	9	6.8	100	350	640
04...	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--
04...	350	130	32	400	8	6.8	108	330	650
MAY									
08...	340	130	30	370	8	7.0	110	340	610
08...	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--
08...	300	120	30	360	8	6.9	121	310	620
AUG									
05...	280	100	27	330	8	6.8	82	290	540
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	250	120	30	380	8	7.4	177	290	610

LAKE GRANBURY NEAR GRANBURY, TX--Continued

322227097412101 - LAKE GRANBURY SITE AC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB								
04...	0.3	4.6	1600	<0.10	0.6	0.02	30	<10
04...	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--
04...	--	--	--	<0.10	0.7	0.02	40	20
04...	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--
04...	--	5.5	1600	<0.10	0.8	0.03	30	230
MAY								
08...	0.3	3.4	1600	<0.10	0.5	0.02	10	<10
08...	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--
08...	--	--	--	<0.10	0.5	0.03	20	40
08...	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--
08...	--	--	--	0.10	0.6	0.02	20	500
08...	--	6.3	1500	<0.10	0.8	0.07	40	1400
AUG								
05...	0.3	5.7	1300	<0.10	0.5	0.02	10	10
05...	--	--	--	--	--	--	--	--
05...	--	--	--	<0.10	0.6	0.03	60	210
05...	--	--	--	--	--	--	--	--
05...	--	--	--	<0.10	0.6	0.02	30	30
05...	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--
05...	--	11	1600	<0.10	3.0	0.54	100	2100

322231097412001 - LAKE GRANBURY SITE AL

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
FEB							
04...	1115	1.00	2670	8.60	13.5	10.6	106
04...	1117	10.0	2690	8.50	13.0	9.9	98
04...	1119	20.0	2690	8.40	12.5	9.8	96
04...	1121	30.0	2700	8.40	12.5	8.0	78
04...	1123	41.0	2700	8.30	12.0	8.8	85
MAY							
08...	0900	1.00	2600	8.00	21.5	7.2	86
08...	0902	10.0	2620	8.00	21.5	7.1	85
08...	0904	20.0	2620	8.00	21.0	6.8	80
08...	0906	30.0	2620	7.70	20.0	5.1	59
08...	0908	40.0	2650	7.50	19.0	3.6	41
08...	0910	45.0	2650	7.40	18.0	2.4	27
08...	0912	50.0	2670	7.40	17.0	1.2	13
08...	0914	55.0	2670	7.40	16.5	1.2	13
AUG							
05...	1100	1.00	2290	8.20	30.0	5.9	--
05...	1102	10.0	2290	8.10	30.0	5.7	--
05...	1104	20.0	2290	8.10	30.0	5.6	--
05...	1106	30.0	2580	7.30	28.5	0.2	--
05...	1108	40.0	2810	7.30	28.0	0.2	--
05...	1110	50.0	2810	7.30	27.5	0.2	--
05...	1112	56.0	2750	7.20	25.5	0.2	3

322345097421901 - LAKE GRANBURY SITE BR

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
FEB							
04...	1040	1.00	2690	8.60	14.0	10.4	104
04...	1042	10.0	2700	8.50	13.5	9.7	96
04...	1044	21.0	2700	8.30	13.0	8.8	86
MAY							
08...	1005	1.00	2600	8.20	22.0	7.7	92
08...	1007	10.0	2600	8.20	22.0	7.7	92
08...	1009	20.0	2620	8.20	22.0	7.7	92
08...	1011	27.0	2620	8.20	22.0	7.6	91
AUG							
05...	1200	1.00	2330	8.20	30.5	6.7	--
05...	1202	10.0	2330	8.20	30.0	6.5	--
05...	1204	20.0	2470	7.90	30.0	5.2	--
05...	1206	30.0	2680	7.30	29.5	0.2	--

LAKE GRANBURY NEAR GRANBURY, TX--Continued

322341097420601 - LAKE GRANBURY SITE BC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB							
04...	1025	1.00	2690	8.60	14.0	10.4	105
04...	1027	10.0	2690	8.50	13.5	9.8	98
04...	1029	20.0	2700	8.30	12.5	9.0	88
04...	1031	30.0	2710	8.10	11.5	7.6	73
04...	1033	40.0	2720	8.00	11.0	6.9	65
04...	1035	50.0	2720	8.00	11.0	6.5	62
04...	1037	63.0	2720	7.80	10.5	4.9	46
MAY							
08...	1015	1.00	2600	8.20	22.5	7.7	93
08...	1017	10.0	2600	8.20	22.5	7.7	93
08...	1019	20.0	2620	8.20	22.0	7.7	92
08...	1021	30.0	2620	8.20	22.0	7.5	90
08...	1023	40.0	2630	7.50	19.5	2.9	33
08...	1025	50.0	2650	7.40	17.5	1.2	13
08...	1027	61.0	2670	7.40	17.0	1.2	13
AUG							
05...	1145	1.00	2330	8.20	30.5	6.6	--
05...	1147	10.0	2350	8.10	30.0	6.2	--
05...	1149	20.0	2490	7.90	30.0	5.4	--
05...	1151	30.0	2750	7.30	29.0	0.2	--
05...	1153	40.0	2840	7.30	28.5	0.2	--
05...	1155	50.0	2900	7.30	27.5	0.2	--
05...	1157	60.0	2780	7.10	24.5	0.2	2

322337097415401 - LAKE GRANBURY SITE BL

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB							
04...	1015	1.00	2690	8.60	14.0	10.3	104
04...	1017	10.0	2690	8.50	13.5	9.8	98
04...	1019	22.0	2700	8.30	12.5	8.8	86
MAY							
08...	1030	1.00	2600	8.20	22.5	7.7	93
08...	1032	10.0	2600	8.20	22.5	7.7	93
08...	1034	20.0	2620	8.20	22.0	7.7	92
08...	1036	28.0	2620	8.10	22.0	7.2	86
AUG							
05...	1135	1.00	2330	8.20	30.5	6.5	--
05...	1137	10.0	2370	8.10	30.0	6.1	--
05...	1139	20.0	2480	7.90	30.0	5.5	--
05...	1141	30.0	2750	7.30	29.0	0.2	--
05...	1143	42.0	2850	7.30	28.5	0.2	--

322537097414501 - LAKE GRANBURY SITE CC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB							
04...	1000	1.00	2500	8.50	15.0	10.0	104
04...	1002	9.00	2690	8.10	14.0	7.0	71
MAY							
08...	1100	1.00	2600	8.20	23.5	7.4	91
08...	1102	12.0	2600	8.20	23.0	7.4	90
AUG							
05...	1225	1.00	2430	8.20	31.0	7.0	--
05...	1227	15.0	2430	7.90	30.0	5.6	--

LAKE GRANBURY NEAR GRANBURY, TX--Continued

322422097423901 - LAKE GRANBURY SITE DC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
FEB							
04...	0935	1.00	2700	8.40	15.0	9.3	96
04...	0937	10.0	2700	8.40	14.0	9.1	92
04...	0939	20.0	2750	8.20	12.0	8.5	82
04...	0940	30.0	2760	8.20	11.5	8.2	79
04...	0942	40.0	2790	8.10	11.5	7.9	76
04...	0944	50.0	2790	8.10	11.5	7.8	75
04...	0945	58.0	2790	8.10	11.5	7.7	74
MAY							
08...	1115	1.00	2600	8.20	23.5	7.6	94
08...	1117	10.0	2600	8.20	23.5	7.5	92
08...	1119	20.0	2570	7.90	22.5	6.0	73
08...	1121	30.0	2550	7.60	21.5	4.3	51
08...	1123	40.0	2560	7.40	19.0	1.8	20
08...	1125	50.0	2640	7.40	17.0	1.3	14
AUG							
05...	1242	1.00	2510	8.00	33.0	5.8	--
05...	1244	10.0	2550	7.70	31.0	4.6	--
05...	1245	15.0	2760	7.20	31.0	0.2	--
05...	1247	20.0	2810	7.20	30.5	0.2	--
05...	1248	25.0	2880	7.20	30.0	0.2	--
05...	1250	30.0	2880	7.30	29.5	0.2	--
05...	1252	40.0	2970	7.30	28.5	0.2	--
05...	1254	54.0	2980	7.20	26.5	0.2	3

322437097423901 - LAKE GRANBURY SITE DL

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
FEB							
04...	1010	1.00	2700	8.40	15.0	9.4	97
04...	1012	10.0	2720	8.30	13.5	9.1	91
04...	1013	22.0	2760	8.20	12.0	8.4	81
MAY							
08...	1135	1.00	2600	8.20	23.5	7.7	95
08...	1137	10.0	2600	8.20	23.5	7.6	94
08...	1139	20.0	2570	7.90	22.5	6.1	74
08...	1141	32.0	2550	7.60	21.5	4.2	50
AUG							
05...	1300	1.00	2510	8.00	33.0	5.7	--
05...	1302	10.0	2550	7.70	31.0	4.5	--
05...	1304	18.0	2780	7.30	31.0	0.2	--

322458097443101 - LAKE GRANBURY SITE EC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
FEB							
04...	0915	1.00	2700	8.50	14.0	9.9	100
04...	0917	10.0	2710	8.40	13.5	9.7	97
04...	0919	20.0	2760	8.30	13.0	9.1	90
04...	0920	30.0	2790	8.20	12.0	8.7	84
04...	0922	40.0	2810	8.20	12.0	8.4	81
04...	0924	50.0	2820	8.10	12.0	8.1	79
MAY							
08...	1145	1.00	2540	8.10	23.5	7.5	92
08...	1147	10.0	2540	8.10	23.5	7.4	91
08...	1149	20.0	2540	8.10	23.5	7.1	87
08...	1151	30.0	2540	7.90	23.0	6.3	77
08...	1153	40.0	2540	7.60	21.0	4.2	49
08...	1155	49.0	2540	7.40	18.5	1.3	15
AUG							
05...	1330	1.00	2510	8.10	32.5	6.5	--
05...	1332	10.0	2510	8.10	32.0	6.1	--
05...	1334	20.0	2540	7.90	30.5	5.3	--
05...	1336	30.0	2970	7.30	29.5	0.2	--
05...	1338	40.0	3000	7.30	29.0	0.2	--
05...	1340	48.0	3060	7.30	28.0	0.2	--

322619097463301 - LAKE GRANBURY SITE FC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	HARDNESS (MG/L AS CACO3)
FEB									
04...	1255	1.00	2830	8.30	14.0	0.61	9.3	94	460
04...	1256	10.0	2830	8.20	13.5	--	9.1	91	--
04...	1257	20.0	2900	8.20	13.5	--	8.9	89	--
04...	1258	30.0	2910	8.10	13.5	--	8.7	87	--
04...	1259	38.0	2890	8.00	12.5	--	8.0	79	460
MAY									
08...	1215	1.00	2540	8.20	23.5	0.8	7.6	94	450
08...	1217	10.0	2540	8.20	23.0	--	7.6	93	--
08...	1219	20.0	2540	8.20	23.0	--	7.4	90	--
08...	1221	30.0	2540	8.00	23.0	--	6.8	83	--
08...	1223	38.0	2540	7.70	22.0	--	4.4	53	470
AUG									
05...	1400	1.00	2540	8.40	31.0	1.20	7.8	--	400
05...	1402	10.0	2550	7.90	30.0	--	5.6	--	--
05...	1404	20.0	2560	7.80	30.0	--	5.3	--	--
05...	1406	30.0	2740	7.50	30.0	--	3.4	--	--
05...	1408	35.0	2900	7.30	29.5	--	0.2	--	--
05...	1410	39.0	3060	7.20	28.5	--	0.2	--	490

DATE	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)
FEB								
04...	350	130	33	420	9	6.9	108	360
04...	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--
04...	350	130	34	410	9	7.1	110	370
MAY								
08...	340	130	30	350	7	7.0	113	340
08...	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--
08...	350	140	30	360	7	7.2	125	330
AUG								
05...	310	110	30	370	8	7.4	84	320
05...	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--
05...	370	140	35	440	9	7.8	128	370

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
FEB								
04...	660	3.6	1700	<0.10	0.5	0.02	30	<10
04...	--	--	--	--	--	--	--	--
04...	--	--	--	<0.10	0.6	0.02	30	<10
04...	--	--	--	--	--	--	--	--
04...	680	3.6	1700	<0.10	0.7	0.02	30	30
MAY								
08...	590	2.8	1500	<0.10	0.5	0.03	10	<10
08...	--	--	--	--	--	--	--	--
08...	--	--	--	<0.10	0.6	0.03	20	20
08...	--	--	--	--	--	--	--	--
08...	580	4.2	1500	<0.10	0.8	0.07	20	440
AUG								
05...	600	6.0	1500	<5.00	0.6	0.03	<10	20
05...	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--
05...	--	--	--	<0.10	0.7	0.04	30	290
05...	--	--	--	--	--	--	--	--
05...	720	8.6	1800	<0.10	1.5	0.08	220	2000

LAKE GRANBURY NEAR GRANBURY, TX--Continued

322703097451401 - LAKE GRANBURY SITE GC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB							
04...	1340	1.00	2700	8.50	15.5	10.2	107
04...	1342	10.0	2730	8.20	13.5	8.2	82
04...	1344	21.0	2730	7.80	13.5	5.2	52
MAY							
08...	1425	1.00	2540	8.30	24.0	8.4	104
08...	1427	10.0	2540	8.30	23.5	7.9	97
08...	1429	20.0	2540	8.20	23.5	7.5	92

322834097470801 - LAKE GRANBURY SITE HC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)
FEB							
04...	1315	1.00	1660	8.00	16.0	0.14	7.2
04...	1317	10.0	2790	8.20	14.5	--	8.3
04...	1319	20.0	3000	8.20	14.0	--	8.5
04...	1321	32.0	3050	8.10	14.0	--	8.4
MAY							
08...	1500	1.00	2640	8.30	23.5	0.4	8.4
08...	1502	10.0	2640	8.20	23.0	--	7.6
08...	1504	20.0	2640	8.20	23.0	--	7.5
08...	1506	30.0	2640	7.60	22.5	--	4.0
AUG							
05...	1500	1.00	2700	8.20	30.0	1.10	7.5
05...	1502	10.0	2890	7.80	29.0	--	6.1
05...	1504	20.0	3040	7.70	29.0	--	5.1
05...	1506	30.0	3120	7.50	29.0	--	4.2

DATE	OXYGEN, DISSOLVED (PERCENT SATURATION)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
FEB						
04...	76	0.20	0.7	0.06	70	<10
04...	85	--	--	--	--	--
04...	87	--	--	--	--	--
04...	86	<0.10	0.6	0.02	30	10
MAY						
08...	104	<0.10	1.0	0.10	20	360
08...	93	--	--	--	--	--
08...	92	<0.10	0.6	0.04	20	20
08...	48	<0.10	0.7	0.03	20	<10
AUG						
05...	--	<0.10	0.8	0.04	20	10
05...	--	--	--	--	--	--
05...	--	--	--	--	--	--
05...	--	<0.10	0.6	0.04	30	90

322819097483201 - LAKE GRANBURY SITE IC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB							
04...	1400	1.00	1520	8.80	16.5	7.0	75
04...	1402	10.0	2550	8.10	14.5	8.4	86
04...	1404	16.0	2950	8.00	13.5	7.4	74
MAY							
08...	1520	1.00	2670	8.20	23.5	7.8	96
08...	1522	10.0	2670	8.10	23.0	6.6	81
08...	1524	20.0	2670	7.80	22.5	4.7	57
AUG							
05...	1615	1.00	2790	8.40	30.0	8.6	--
05...	1617	10.0	2790	7.70	28.5	5.5	--
05...	1619	16.0	2790	7.70	28.5	5.4	--

LAKE GRANBURY NEAR GRANBURY, TX--Continued

323318097480101 - LAKE GRANBURY SITE JC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB							
04...	1330	1.00	330	7.80	17.5	5.3	58
04...	1332	10.0	318	7.90	16.0	5.1	54
04...	1334	20.0	318	7.90	16.0	5.0	53
MAY							
08...	1550	1.00	2700	8.10	24.0	7.6	95
08...	1552	10.0	2700	7.90	24.0	6.4	80
08...	1554	20.0	2700	7.80	23.0	5.0	61
AUG							
05...	1640	1.00	3300	8.50	31.5	10.2	--
05...	1642	10.0	3050	7.60	29.0	4.0	--
05...	1644	20.0	3340	7.70	29.0	5.1	--

323435097492001 - LAKE GRANBURY SITE KC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	HARDNESS (MG/L AS CACO3)
FEB									
04...	1455	1.00	343	7.90	17.0	0.04	5.3	57	90
04...	1457	10.0	332	7.90	16.5	--	5.3	56	--
04...	1459	16.0	332	7.90	16.5	--	5.3	56	86
MAY									
08...	1610	1.00	2550	8.30	25.0	0.4	8.3	105	450
08...	1612	5.00	2560	8.10	25.0	--	7.3	93	--
08...	1614	12.0	2570	7.60	24.0	--	4.6	57	450
AUG									
05...	1700	1.00	2170	8.30	29.5	0.58	6.5	--	350
05...	1701	5.00	2090	7.70	27.5	--	6.5	--	--
05...	1703	10.0	2090	7.60	26.5	--	5.2	67	--
05...	1704	15.0	2130	7.60	26.5	--	4.6	59	340

DATE	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)
FEB								
04...	33	27	5.4	31	1	5.0	57	34
04...	--	--	--	--	--	--	--	--
04...	30	26	5.1	28	1	5.0	56	27
MAY								
08...	340	130	30	360	8	7.2	113	340
08...	--	--	--	--	--	--	--	--
08...	330	130	30	360	8	7.1	116	350
AUG								
05...	260	100	25	310	7	7.2	94	260
05...	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--
05...	250	98	24	290	7	7.1	95	250

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
FEB								
04...	49	4.5	190	0.30	1.0	0.12	190	6
04...	--	--	--	--	--	--	--	--
04...	43	4.6	170	0.30	1.3	0.14	200	6
MAY								
08...	590	2.3	1500	<0.10	0.9	0.07	20	20
08...	--	--	--	--	--	--	--	--
08...	590	2.7	1500	<0.10	0.7	0.06	10	300
AUG								
05...	480	5.3	1200	0.20	0.8	0.05	<10	20
05...	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--
05...	460	5.6	1200	0.20	0.7	0.05	<10	90

08091000 BRAZOS RIVER NEAR GLEN ROSE, TX

LOCATION.--Lat 32°16'18", long 97°39'48", Somervell County, Hydrologic Unit 12060201, at downstream side of bridge on U.S. Highway 67, 600 ft downstream from Georges Creek, 4.1 mi upstream from Paluxy River, 6 mi northeast of Glen Rose, and at mile 511.2.

DRAINAGE AREA.--25,818 mi², of which 9,566 mi² probably is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1923 to current year.

REVISED RECORDS.--WSP 1058: 1932. WSP 1512: 1946-47, 1949. WSP 1712: 1928(M). WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 567.82 ft above National Geodetic Vertical Datum of 1929. Prior to May 7, 1931, nonrecording gage at site 2.5 mi downstream at same datum. May 7, 1931, to Sept. 30, 1957, water-stage recorder at site 2.4 mi downstream at same datum, used as supplementary gage Oct. 1, 1957, to Apr. 1, 1959. Apr. 27, 1950, to Sept. 30, 1957, water-stage recorder, present gage, used as supplementary gage.

REMARKS.--Estimated daily discharges: Jan. 24-28. Records good. Since September 1969, flow largely regulated by Lake Granbury (station 08090900) 31 mi upstream. There are many diversions above station for irrigation, municipal supply, and oilfield operation.

AVERAGE DISCHARGE.--46 years (water years 1924-69) prior to regulation by Lake Granbury, 1,567 ft³/s (1,135,000 acre-ft/yr); 17 years (water years 1970-86) regulated, 961 ft³/s (696,200 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 97,600 ft³/s May 18, 1935 (gage height, 23.68 ft, site then in use, from floodmarks); maximum gage height, 35.19 ft, present site, Oct. 15, 1981; no flow at times prior to construction of Morris Sheppard Dam (1941) on the Brazos River forming Possum Kingdom Lake, and on July 14, 1984.
Maximum stage since at least 1876, that of Oct. 15, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1908 reached a stage of 27 ft, and flood in May 1922 reached a stage of 29.5 ft, each at site 2.4 mi downstream, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,600 ft³/s Sept. 2 at 0500 hours (gage height, 12.65 ft); minimum daily, 7.9 ft³/s Aug. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	163	533	186	104	74	59	94	885	48	45	541
2	62	122	321	260	58	44	218	468	3310	32	720	6630
3	61	254	47	84	1880	235	87	162	1860	32	552	1830
4	60	285	32	42	7480	695	78	50	2440	1470	893	1640
5	59	300	32	354	1300	265	263	45	2380	1760	1020	1060
6	58	305	32	146	270	649	274	45	5620	444	242	2580
7	58	306	32	40	61	278	211	43	5950	1600	54	1980
8	60	308	32	200	245	251	68	109	4810	3510	25	4570
9	62	855	34	293	435	315	38	468	6340	4380	14	2980
10	63	449	36	100	437	238	38	1690	8050	1420	11	2440
11	69	276	1190	49	971	515	170	931	5790	3310	86	2400
12	67	283	302	544	479	358	79	179	2770	2170	1040	2390
13	66	807	53	324	217	92	38	56	3360	2030	795	2390
14	67	817	33	62	50	48	36	44	3180	1520	193	2390
15	67	894	35	44	33	226	37	227	2740	330	157	2380
16	67	803	36	196	40	120	36	90	3140	452	273	2210
17	70	263	534	298	147	253	36	500	3500	1040	227	2110
18	1360	42	900	308	213	104	37	2110	3460	301	253	1550
19	2050	1460	546	624	70	286	38	1100	2710	149	289	381
20	3190	833	93	384	40	70	37	603	1960	79	399	91
21	6110	226	546	72	201	39	38	126	1890	484	192	54
22	1530	38	314	623	178	630	38	56	820	421	770	46
23	665	27	57	250	63	490	42	45	790	869	518	1220
24	2160	27	38	200	41	148	53	45	924	1090	280	1090
25	1570	27	38	40	36	61	302	70	924	1080	295	691
26	1420	27	40	275	207	36	467	634	981	408	249	680
27	1490	865	40	275	277	222	146	197	1850	462	69	682
28	2150	267	39	275	220	90	51	1820	1060	395	34	692
29	1380	41	39	320	---	40	46	681	842	434	15	702
30	769	30	40	313	---	35	210	127	218	285	10	342
31	353	---	39	307	---	81	---	512	---	92	7.9	---
TOTAL	27277	11400	6083	7488	15753	6988	3271	13327	84554	32097	9727.9	50742
MEAN	880	380	196	242	563	225	109	430	2818	1035	314	1691
MAX	6110	1460	1190	624	7480	695	467	2110	8050	4380	1040	6630
MIN	58	27	32	40	33	35	36	43	218	32	7.9	46
AC-FT	54100	22610	12070	14850	31250	13860	6490	26430	167700	63660	19300	100600

CAL YR 1985 TOTAL 408801 MEAN 1120 MAX 12300 MIN 24 AC-FT 810900
WTR YR 1986 TOTAL 268707.9 MEAN 736 MAX 8050 MIN 7.9 AC-FT 533000

08091000 BRAZOS RIVER NEAR GLEN ROSE, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: August to November 1946. Chemical and biochemical analyses: October 1980 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3
OCT 30...	1445	766	3000	8.30	17.5	7	2.1	9.7	106	0.8	500	400
JAN 30...	0930	530	2700	8.20	8.0	5	2.0	10.7	--	0.7	480	360
MAR 06...	1030	879	2800	8.20	13.0	10	1.4	9.4	91	0.9	450	340
JUN 02...	1030	3570	1010	7.80	21.0	35	100	6.8	79	2.1	200	100
JUL 28...	1130	530	2620	7.90	30.0	5	1.0	6.8	--	0.4	420	310
SEP 16...	1445	2190	2480	8.10	25.0	8	1.0	8.0	99	1.2	360	260

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
OCT 30...	130	42	460	9	7.6	98	370	730	0.4	6.0	1800
JAN 30...	130	38	390	8	6.9	117	310	650	0.3	4.8	1600
MAR 06...	130	30	400	9	6.9	113	330	640	0.5	3.7	1600
JUN 02...	60	11	110	4	5.5	94	94	180	0.2	5.3	520
JUL 28...	120	30	360	8	7.3	112	300	580	0.4	5.4	1500
SEP 16...	100	27	360	9	7.4	98	300	550	0.4	6.3	1400

DATE	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	SOLIDS, VOLATILE, SUSPENDED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DISSOLVED (UG/L AS AS)
OCT 30...	--	--	--	<0.01	<0.10	--	--	0.5	0.03	5.5	2
JAN 30...	4	3	--	<0.01	<0.10	0.04	0.46	0.5	0.01	3.2	<1
MAR 06...	4	1	--	<0.01	<0.10	0.03	0.47	0.5	0.01	5.1	--
JUN 02...	772	93	0.19	0.01	0.20	0.03	1.9	1.9	0.35	19	1
JUL 28...	6	3	--	<0.01	<0.10	0.04	0.66	0.7	0.02	4.3	1
SEP 16...	3	2	--	<0.01	<0.10	0.03	0.77	0.8	0.04	5.4	--

DATE	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)
OCT 30...	200	<1	<10	<1	<10	<1	10	<0.1	<1	<1	10
JAN 30...	200	1	<10	<1	30	<1	<10	0.1	<1	<1	<10
MAR 06...	--	--	--	--	--	--	--	--	--	--	--
JUN 02...	85	<1	<10	<1	43	<5	<1	<0.1	<1	<1	13
JUL 28...	200	<1	<10	<1	<10	<5	10	0.1	<1	<1	10
SEP 16...	--	--	--	--	--	--	--	--	--	--	--

08091500 PALUXY RIVER AT GLEN ROSE, TX
(Flood-Hydgrograph Partial-Record Station)

LOCATION.--Lat 32°13'53", long 97°46'37", Somervell County, Hydrologic Unit 12060202, on left bank at downstream side of remaining pier of dismantled highway bridge, 500 ft upstream from bridge on U.S. Highway 67, 1.0 mi upstream from Cross Branch, 1.2 mi southwest of Glen Rose, and 5.1 mi upstream from mouth.

DRAINAGE AREA.--410 mi².

PERIOD OF RECORD.--October 1985 to September 1986. October 1923 to September 1925 and May 1947 to September 1985, operated as continuous-record station. Prior to October 1965, published as Paluxy Creek at Glen Rose.

REVISED RECORDS.--WSP 1392: 1949, 1952. WSP 2122: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 609.66 ft National Geodetic Vertical Datum of 1929. Oct. 27, 1923, to Sept. 30, 1925, nonrecording gage at bridge 1.8 mi downstream at datum 13.62 ft lower.

REMARKS.--Converted to flood-hydrograph partial-record station effective Oct. 1, 1985. Flow is affected at times by discharge from the flood-detention pools of fourteen floodwater-retarding structures with a combined capacity of 20,100 acre-ft. These structures control runoff from 90.8 mi². Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--39 years (water years 1925, 1948-85), 62.4 ft³/s (2.07 in/yr), 45,210 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,000 ft³/s Oct. 4, 1959 (gage height, 25.4 ft), from rating curve extended above 32,000 ft³/s; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1877, 27.2 ft Apr. 17, 1908, present site and datum (discharge, 59,000 ft³/s), from rating curve extended as explained above. Flood of May 21, 1922, reached a stage of 26.0 ft, present site and datum (discharge, 53,000 ft³/s), from rating curve extended as explained above. Flood in November 1918 reached about the same stage as flood of May 21, 1922, from information by local residents.

EXTREME FOR CURRENT YEAR.--Maximum discharge, 4,700 ft³/s Sept. 2 at 0800 hours (gage height, 9.14 ft), no other peak greater than base discharge of 4,000 ft³/s.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	4.8	5.8	6.5	6.9	7.3	6.4	5.1	158	21	3.7	4.3
2	.02	5.3	11	6.5	7.0	7.3	6.4	6.1	500	20	3.5	1690
3	.01	4.9	9.5	6.4	407	8.1	6.7	6.0	564	21	3.8	745
4	.00	4.8	8.0	6.5	115	8.5	8.2	6.0	262	22	7.2	870
5	.00	4.8	7.3	6.4	37	8.2	9.2	5.6	3690	19	6.0	993
6	.17	4.3	6.9	6.4	25	8.1	7.3	5.4	1910	17	6.0	1550
7	.16	3.8	6.4	6.4	26	8.2	6.8	5.0	1650	16	6.0	937
8	.14	3.7	6.3	6.3	19	7.9	6.5	465	1320	14	5.2	795
9	.14	3.8	6.4	6.4	16	7.6	6.2	569	840	14	4.4	601
10	.18	3.8	7.0	6.4	14	7.3	7.0	311	345	12	4.0	463
11	.26	3.9	7.6	6.5	14	7.4	7.8	122	293	11	4.2	303
12	.13	3.7	6.9	6.5	12	7.5	8.3	56	207	10	9.3	150
13	.14	3.8	6.7	6.5	11	7.6	8.0	35	135	9.7	7.9	81
14	.13	4.2	6.5	6.6	11	7.8	7.7	25	97	9.2	5.6	61
15	.15	7.4	6.4	6.9	11	8.0	6.7	20	88	8.7	4.7	50
16	.12	5.0	6.4	6.9	11	7.6	6.2	17	76	8.0	3.9	43
17	5.8	9.8	6.4	7.1	10	7.1	6.0	176	69	7.6	3.4	39
18	39	7.7	6.4	7.1	9.8	8.3	6.1	135	137	7.1	2.9	35
19	202	6.4	6.4	7.1	9.5	8.0	7.4	69	159	6.8	2.9	32
20	71	4.9	6.4	6.9	9.4	8.5	7.4	43	112	6.3	3.4	29
21	26	4.8	6.4	6.9	8.6	9.4	6.6	35	65	24	3.2	27
22	16	4.8	6.5	6.8	7.9	8.1	6.1	26	50	34	3.4	26
23	11	5.0	6.5	6.4	7.9	7.2	5.8	22	41	8.5	3.2	25
24	8.6	4.9	6.5	6.5	7.9	6.8	5.3	20	38	7.7	2.9	24
25	7.3	5.3	6.4	6.5	7.9	6.7	5.0	22	35	6.8	2.4	23
26	6.1	6.2	6.4	6.4	7.9	6.5	4.7	37	33	6.2	2.3	22
27	5.3	6.2	6.4	6.4	7.7	6.4	4.6	35	30	5.8	2.4	21
28	4.8	5.8	6.4	6.4	7.9	6.6	4.7	35	26	5.4	2.1	20
29	4.8	5.9	6.4	6.4	---	6.6	4.4	26	25	4.9	2.3	19
30	4.6	6.1	6.6	6.5	---	6.6	4.4	21	23	4.4	2.2	25
31	4.5	---	6.6	6.7	---	6.4	---	19	---	4.0	2.1	---
TOTAL	418.59	155.8	211.8	204.2	845.3	233.6	193.9	2380.2	12978	372.1	126.5	9703.3
MEAN	13.5	5.19	6.83	6.59	30.2	7.54	6.46	76.8	433	12.0	4.08	323
MAX	202	9.8	11	7.1	407	9.4	9.2	569	3690	34	9.3	1690
MIN	.00	3.7	5.8	6.3	6.9	6.4	4.4	5.0	23	4.0	2.1	4.3
CFSM	.03	.01	.02	.02	.07	.02	.02	.19	1.06	.03	.01	.79
IN.	.04	.01	.02	.02	.08	.02	.02	.22	1.18	.03	.01	.88
AC-FT	830	309	420	405	1680	463	385	4720	25740	738	251	19250

CAL YR 1985 TOTAL 11150.59 MEAN 30.5 MAX 1440 MIN .00 CFSM .07 IN. 1.01 AC-FT 22120
WTR YR 1986 TOTAL 27823.29 MEAN 76.2 MAX 3690 MIN .00 CFSM .19 IN. 2.52 AC-FT 55190

08091730 SQUAW CREEK RESERVOIR NEAR GLEN ROSE, TX

LOCATION.--Lat 32°18'00", long 97°47'12", Somervell County, Hydrologic Unit 12060202, on upstream side of intake structure near power house, 1.8 mi upstream from dam, 3.9 mi north of Glen Rose, and 6.1 mi upstream from mouth.

DRAINAGE AREA.--64.0 mi².

PERIOD OF RECORD.--February 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--The reservoir is formed by a rolled earthfill dam 4,360 long. Deliberate impoundment began in February 1977, and the dam was completed in June 1977. The flood-control outlet works consist of an ungated 100-foot-long concrete ogee spillway located at right end of dam. The low-flow outlet works consist of a concrete outlet tower with three 4- by 6-foot slide gates and a 6- by 6-foot slide gate, which feed into a 6-foot inside diameter concrete conduit that extends through the dam. During the year, water was diverted by pipeline from Lake Granbury into this reservoir. Figures given herein represent total contents. Data regarding the dam and reservoir are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam..	796.0	228,100
Crest of spillway..................................	783.0	178,100
Crest of spillway (normal operating level)...........	775.0	151,100
Invert of slide gate (No. 1).........................	764.0	117,300
Invert of slide gate (No. 2).........................	715.0	24,670
Invert of slide gate (No. 3).........................	666.5	380
Lowest gated outlet (invert).........................	653.0	0

COOPERATION.--The capacity table, provided by Texas Utilities Services, Inc., was prepared by Freese and Nichols Inc., Consulting Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 154,800 acre-ft May 26, 1982 (elevation, 776.16 ft); minimum since initial filling of reservoir on May 3, 1979, 142,700 acre-ft May 20, 1983 (elevation, 772.44 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 153,100 acre-ft June 9 at 1200 hours (elevation, 775.64 ft); minimum, 145,000 acre-ft May 4, 5 (elevation, 773.15 ft).

Capacity table (elevation, in feet, and total contents, in acre-feet

773.0	144,500	774.0	147,700
775.0	151,000	776.0	154,200

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	146000	148900	148100	147200	146500	146300	145700	145100	147900	151400	149200	148100
2	146000	148800	148000	147200	146500	146300	145600	145100	147900	151300	149100	149800
3	146100	148800	147900	147200	146800	146300	145700	145000	148800	151200	149100	149800
4	146000	148700	147900	147100	146800	146300	145700	145000	148900	151200	149100	149800
5	146000	148700	147800	147100	146900	146300	145700	145000	150400	151000	149000	151100
6	146000	148700	147800	147100	146900	146200	145700	145000	151800	150900	148900	151400
7	146000	148600	147800	147000	146900	146200	145700	145000	152000	150800	148900	151600
8	146100	148500	147800	147000	146800	146200	145700	146300	153000	150800	148800	151600
9	146100	148500	147800	146900	146900	146200	145600	146500	153000	150700	148800	151600
10	146300	148500	147900	146900	146800	146200	145700	147000	152800	150600	148900	151500
11	146400	148400	147800	146900	146700	146200	145700	147000	153000	150500	148900	151500
12	146500	148400	147700	146800	146700	146200	145700	147000	152800	150300	148900	151400
13	146500	148400	147600	146800	146600	146200	145700	146900	152600	150200	148800	151400
14	146700	148400	147500	146800	146600	146200	145600	146900	152500	150200	148700	151300
15	146700	148500	147500	146800	146600	146200	145600	146800	152400	150100	148600	151300
16	146800	148500	147500	146800	146600	146200	145500	146800	152300	150000	148700	151300
17	146200	148500	147500	146800	146600	146100	145400	147800	152600	149900	148500	151200
18	148500	148500	147400	146800	146600	146100	145500	147800	152500	149800	148400	151200
19	149400	148400	147400	146700	146600	146100	145500	147700	152500	149800	148400	151100
20	149400	148400	147400	146700	146600	146100	145400	147700	152400	149700	148300	151100
21	149400	148300	147400	146700	146500	146000	145400	147600	152300	150000	148200	151000
22	149300	148300	147400	146600	146500	146000	145300	147600	152200	150000	148200	151000
23	149300	148300	147400	146600	146400	145900	145300	147500	152100	149900	148200	151000
24	149300	148200	147400	146600	146400	145900	145200	147500	151900	149900	148100	150900
25	149300	148200	147300	146500	146400	145900	145200	147600	151900	149800	148000	150800
26	149300	148300	147300	146500	146400	145800	145100	147600	151800	149700	147900	150700
27	149200	148200	147300	146500	146300	145800	145100	147500	151800	149700	147900	150700
28	149100	148200	147300	146500	146300	145800	145000	147500	151700	149700	147800	150700
29	149000	148200	147300	146500	---	145700	145000	147500	151600	149500	147700	150600
30	148900	148200	147200	146500	---	145700	145000	147500	151500	149400	147500	150600
31	148900	---	147200	146500	---	145700	---	147600	---	149300	147400	---
MAX	149400	148900	148100	147200	146900	146300	145700	147800	153000	151400	149200	151600
MIN	146000	148200	147200	146500	146300	145700	145000	145000	147900	149300	147400	148100
(†)	774.36	774.15	773.85	773.62	773.57	773.37	773.16	773.96	775.16	774.50	773.92	774.88
(‡)	+2900	-700	-1100	-700	-200	-600	-700	+2600	+3900	-2200	-1900	+3200

CAL YR 1985 MAX 150900 MIN 145500 (‡) -2300
WTR YR 1986 MAX 153000 MIN 145000 (‡) +4600

(†) Elevation, in feet, at end of month.
(‡) Change in contents, in acre-feet.

08091750 SQUAW CREEK NEAR GLEN ROSE, TX

LOCATION.--Lat 32°16'12", long 97°43'56", Somervell County, Hydrologic Unit 12060202, on left bank at downstream side of highway embankment 25 ft left of left end of bridge on State Highway 144, 2.1 mi upstream from mouth, 2.5 mi downstream from Squaw Creek Dam, and 2.8 mi northeast of Glen Rose.

DRAINAGE AREA.--70.3 mi^2.

PERIOD OF RECORD.--October 1973 to current year.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 599.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 15-27, Mar. 13-16, and Aug. 13-17. Records good except estimated daily discharges, which are fair. No known diversions between Squaw Creek Reservoir and this station. Flow regulated since Feb. 15, 1977, by Squaw Creek Reservoir. During the year, low flows were sustained by releases from pipeline used to divert water from Lake Granbury (station 08090900) to Squaw Creek Reservoir (station 08091730). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--10 years (water years 1977-86, 7.28 ft^3/s (5,270 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,030 ft^3/s Apr. 8, 1975 (gage height, 11.90 ft), from rating curve extended above 1,000 ft^3/s on basis of velocity-area study; minimum, 0.02 ft^3/s Aug. 28, 29, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1934, about 20.5 ft in May 1957, from information by State Department of Highways and Public Transportation (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,350 ft^3/s May 8 at 2030 hours (gage height, 6.35 ft); minimum, 1.1 ft ^{3}/s June 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	4.3	6.2	4.0	3.8	4.9	3.4	3.3	84	3.5	5.2	6.0
2	4.0	4.2	4.6	4.0	3.6	4.9	3.6	3.6	7.2	3.5	5.1	151
3	3.8	4.0	4.6	3.7	6.3	5.6	3.8	3.7	39	3.3	5.6	7.3
4	3.6	4.0	4.5	3.4	4.4	5.9	4.0	3.6	2.9	3.2	6.2	4.9
5	3.2	4.0	4.7	3.4	4.9	5.8	3.9	3.8	94	3.2	5.8	41
6	3.2	4.0	5.7	3.4	4.5	5.3	3.3	4.0	57	3.1	5.2	49
7	3.2	4.0	5.7	3.4	4.1	5.3	3.2	4.0	20	3.1	5.3	15
8	3.2	4.0	5.7	3.4	4.0	5.3	3.2	116	37	3.1	5.2	19
9	3.2	4.0	4.3	3.4	4.1	5.3	3.3	33	142	3.1	4.8	19
10	3.2	4.0	4.1	3.4	4.3	5.0	4.5	23	123	3.3	5.3	17
11	3.4	4.2	4.6	3.4	4.3	4.8	4.4	4.2	142	3.3	5.7	16
12	3.4	4.6	4.3	3.4	4.6	4.7	3.7	3.8	128	3.8	4.3	11
13	3.4	4.5	4.3	3.4	4.6	4.7	3.7	3.7	107	3.9	4.2	8.2
14	3.4	4.6	4.3	3.4	4.6	4.3	3.5	3.4	87	4.3	4.2	7.0
15	3.4	10	4.3	3.4	4.6	4.3	3.4	3.4	75	4.1	4.0	5.7
16	3.4	4.3	4.3	3.4	4.7	4.3	3.4	3.4	66	2.6	4.0	5.1
17	100	4.3	4.2	3.4	4.9	4.3	3.7	26	68	4.5	4.0	4.6
18	30	4.3	4.0	3.6	4.9	4.9	3.9	5.2	92	4.6	4.0	4.6
19	20	3.9	4.0	3.7	4.9	3.8	4.5	4.3	86	4.7	4.0	4.6
20	3.4	3.7	4.0	3.6	4.9	3.7	4.3	4.3	83	4.9	3.7	4.6
21	3.4	3.7	4.0	3.7	5.1	3.7	4.0	4.2	67	9.2	3.4	4.5
22	3.4	3.7	4.0	3.7	5.3	3.7	4.0	4.0	53	12	3.4	4.3
23	3.4	3.6	4.0	3.7	5.3	3.7	3.6	4.0	43	6.4	3.4	4.3
24	3.4	3.4	4.0	3.7	5.3	3.5	4.0	4.0	33	6.2	3.4	4.1
25	3.4	3.8	4.0	3.7	5.5	3.7	4.2	4.0	26	6.1	3.3	5.2
26	3.4	4.4	4.0	3.7	5.7	3.7	4.1	4.0	21	6.1	3.2	4.5
27	3.4	5.2	4.0	3.7	5.5	3.9	4.2	4.0	16	6.0	3.2	4.3
28	3.4	4.9	4.0	3.7	4.9	4.0	4.4	4.0	11	5.7	3.2	4.3
29	3.7	4.9	4.0	3.9	---	3.9	3.4	4.0	6.4	5.9	3.4	4.3
30	4.2	5.0	4.0	6.4	---	3.4	3.2	4.0	4.3	5.5	3.4	4.3
31	4.3	---	4.0	4.4	---	3.4	---	7.0	---	5.3	3.2	---
TOTAL	247.8	131.5	136.4	114.5	133.6	137.7	113.8	306.9	1820.8	147.5	132.3	444.7
MEAN	7.99	4.38	4.40	3.69	4.77	4.44	3.79	9.90	60.7	4.76	4.27	14.8
MAX	100	10	6.2	6.4	6.3	5.9	4.5	116	142	12	6.2	151
MIN	3.2	3.4	4.0	3.4	3.6	3.4	3.2	3.3	2.9	2.6	3.2	4.1
AC-FT	492	261	271	227	265	273	226	609	3610	293	262	882

CAL YR 1985 TOTAL 1840.6 MEAN 5.04 MAX 100 MIN 1.7 AC-FT 3650
WTR YR 1986 TOTAL 3867.5 MEAN 10.6 MAX 151 MIN 2.6 AC-FT 7670

08092500 LAKE WHITNEY NEAR WHITNEY, TX

LOCATION.--Lat 31°51'55", long 97°22'18", Bosque County, Hydrologic Unit 12060202, on State Highway 22, in intake structure of Whitney Dam on Brazos River, 2.4 mi upstream from Coon Creek, 3.5 mi upstream from Iron Creek, 7.4 mi southwest of Whitney, and at mile 442.4.

DRAINAGE AREA.--27,189 mi², approximately, of whicn 9,566 mi² probably is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1951 to current year. Prior to October 1970, published as Whitney Reservoir. Prior to October 1980, published as Whitney Lake.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--The lake is formed by a concrete-gravity and rolled earthfill dam 17,695 ft long, including spillway. The dam was completed in April 1951, and deliberate impoundment began Dec. 10, 1951. Concrete spillway is 680 ft long and includes 17 tainter gates 38.0 by 40.0 ft each. Outlet works are comprised of 16 gate-operated conduits that are 5.0- by 9.0 ft each. The space between elevations 522.0 and 571.0 ft is reserved for flood-control storage. At maximum design elevation of 573.0 ft the spillway is designed to discharge 684,000 ft³/s. Capacity table is based on a survey made in April and May 1959. Figures given herein represent total contents. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam..	584.0	-
Design flood..	573.0	2,100,000
Top of gates..	571.0	1,999,500
Crest of spillway (sill of gates).................................	533.0	627,100
Top of conservation pool (top of designated power storage)...........	522.0	411,100
Lowest controlled outlet (invert).................................	448.83	4,270

COOPERATION.--Records furnished by the U.S. Army Corps of Engineers and reviewed by the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,980,000 acre-ft May 29, 1957 (elevation, 570.25 ft); minimum daily since power pool elevation first reached in April 1954, 250,200 acre-ft Nov. 1, 1956 (elevation 509.52 ft).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 663,700 acre-ft June 12 at 0800 hours (elevation, 534.52 ft); minimum daily, 504,100 acre-ft May 8 at 2400 hours (elevation, 527.35 ft).

Capacity table (elevation, in feet, and total contents, in acre-feet)

527.0	497,400	531.0	581,300	535.0	675,500
529.0	537,800	533.0	627,100		

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	546400	583000	585700	566100	543000	544100	531800	515300	527600	625900	614300	585700
2	545400	581700	583700	565800	543200	543000	529900	513000	535500	625700	612500	619000
3	544700	581000	582400	565200	546600	542200	530100	513500	542200	626900	610600	625500
4	545100	580400	581900	564700	562300	542400	530500	511800	548800	626900	611300	628300
5	544300	579300	580400	562500	570000	544300	530300	511800	574400	627800	610400	634400
6	542500	579700	578800	562500	570700	543900	530900	509000	598800	628700	609200	645600
7	540900	578200	578600	561000	570700	544700	530500	508100	615900	628300	607400	654700
8	540900	576000	577300	558300	569600	544500	531800	504100	628300	631500	605500	660600
9	540500	575700	576600	555900	568500	543700	530500	509600	639100	639600	602900	661100
10	541100	577100	587500	555900	568300	546900	531800	517300	649800	638200	602700	659600
11	541600	576800	588100	555700	566500	546200	531500	519600	663000	641000	603900	658900
12	541600	575700	588600	555900	566300	546400	531100	519800	662800	642500	602000	656900
13	540900	576200	587200	555300	565000	545600	528900	517300	662500	643700	601300	654400
14	543000	576800	585500	553700	565400	544700	529100	514700	661600	644900	599500	650700
15	542200	579000	582400	552700	563600	543900	527800	514300	658900	642700	597400	648300
16	541600	579700	580400	552200	563200	542200	526600	512600	657600	639600	596000	644900
17	541100	579500	578200	551800	561400	539500	525100	521200	657600	637700	594700	642000
18	544700	579500	577700	546900	560300	539000	525600	529300	656900	636200	592900	637400
19	556600	584300	576800	546200	559000	535500	526800	531500	655900	634400	591100	635300
20	559400	583500	575500	546000	558800	535500	525100	531300	654900	632500	589700	634800
21	568900	584300	574600	546900	555900	534700	523900	529700	650500	628500	589900	635500
22	572200	583900	576000	544500	555300	534200	522300	527600	644600	627600	588400	632900
23	572700	584600	575300	544700	554800	535700	520400	527400	637900	625200	589000	631500
24	574900	584600	574200	545400	554000	535900	519000	528000	636000	624500	587900	631300
25	575300	582600	572400	545600	549200	533200	518600	527200	634100	624300	586300	631100
26	576400	582800	570900	544700	547900	534700	519000	526600	633200	623400	584100	630400
27	577900	583200	571100	542400	546900	533800	519400	525600	632900	621800	582600	631500
28	581700	584100	571100	542400	545400	533600	517300	525600	632900	620400	582400	632700
29	584800	583900	570700	543000	---	532600	514900	525600	630600	618500	580600	632900
30	583700	587500	570000	542600	---	533000	514500	527200	630400	617100	579900	632500
31	583000	---	568700	542000	---	532200	---	527400	---	615300	579500	---
MAX	584800	587500	588600	566100	570700	546900	531800	531500	663000	644900	614300	661100
MIN	540500	575700	568700	542000	543000	532200	514500	504100	527600	615300	579500	585700
(†)	531.08	531.28	530.43	529.20	529.36	528.73	527.87	528.50	533.14	532.49	530.92	533.23
(Φ)	+35500	+4500	-18800	-26700	+3400	-13200	-17700	+12900	+103000	-15100	-35800	+53000

CAL YR 1985 MAX 692100 MIN 486800 (Φ) +92300
WTR YR 1986 MAX 663000 MIN 504100 (Φ) +85000

(†) Elevation, in feet, at end of month.
(Φ) Change in contents, in acre-feet.

08092500 LAKE WHITNEY NEAR WHITNEY, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: November 1961 to current year.

315203097222601 - LAKE WHITNEY SITE AC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)
FEB											
19...	0930	1.00	2340	8.30	11.5	2.40	9.4	90	--	--	440
19...	0931	3.90	--	--	--	--	--	--	--	--	--
19...	0932	10.0	2340	8.20	10.5	--	9.4	87	--	--	--
19...	0934	20.0	2340	8.20	10.5	--	9.4	87	--	--	--
19...	0936	30.0	2340	8.20	10.0	--	9.4	86	--	--	--
19...	0938	40.0	2340	8.20	9.5	--	9.4	--	--	--	--
19...	0940	50.0	2350	8.20	9.5	--	9.3	--	--	--	--
19...	0942	60.0	2350	8.20	9.5	--	9.3	--	--	--	--
19...	0944	70.0	2350	8.20	9.5	--	9.3	--	--	--	--
19...	0946	80.0	2350	8.20	9.5	--	9.3	--	--	--	--
19...	0948	90.0	2350	8.20	9.5	--	9.3	--	--	--	--
19...	0949	95.0	2350	8.20	9.5	--	9.3	--	--	--	450
MAY											
07...	1000	1.00	2500	8.20	20.5	1.70	7.6	87	K1	K1	450
07...	1001	2.80	--	--	--	--	--	--	--	--	--
07...	1002	10.0	2500	8.20	20.0	--	7.6	86	--	--	--
07...	1004	20.0	2500	8.20	20.0	--	7.3	82	--	--	--
07...	1006	30.0	2500	8.10	19.5	--	6.7	75	--	--	--
07...	1008	40.0	2500	8.00	19.5	--	6.2	69	--	--	--
07...	1010	50.0	2500	7.70	18.5	--	5.0	55	--	--	--
07...	1012	60.0	2500	7.60	17.0	--	4.1	43	--	--	--
07...	1014	70.0	2500	7.50	16.0	--	3.5	36	--	--	--
07...	1016	80.0	2500	7.50	15.5	--	3.2	33	--	--	--
07...	1018	90.0	2500	7.40	15.5	--	2.2	23	--	--	420
AUG											
06...	0930	1.00	2030	8.10	28.5	2.50	6.0	--	K11	K24	330
06...	0931	1.00	--	--	--	--	--	--	--	--	--
06...	0932	10.0	2040	7.90	28.5	--	5.5	--	--	--	--
06...	0934	20.0	2070	7.50	28.0	--	3.0	--	--	--	--
06...	0936	30.0	2100	7.40	28.0	--	2.4	--	--	--	--
06...	0937	35.0	2130	7.40	27.5	--	2.1	--	--	--	--
06...	0938	40.0	2200	7.30	26.5	--	0.2	3	--	--	--
06...	0940	50.0	2360	7.30	24.5	--	0.2	2	--	--	--
06...	0942	60.0	2460	7.30	23.0	--	0.2	2	--	--	--
06...	0944	70.0	2500	7.30	22.0	--	0.2	2	--	--	--
06...	0946	80.0	2500	7.30	21.0	--	0.2	2	--	--	--
06...	0948	90.0	2500	7.30	19.5	--	0.2	2	--	--	--
06...	0949	95.0	2500	7.30	19.0	--	0.2	2	--	--	390

LAKE WHITNEY NEAR WHITNEY, TX--Continued

315203097222601 - LAKE WHITNEY SITE AC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
FEB											
19...	340	120	35	360	8	6.9	107	290	580	0.4	6.2
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	340	130	30	360	8	7.0	107	290	570	--	6.3
MAY											
07...	340	130	30	350	7	6.9	112	320	590	0.3	5.9
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
07...	310	120	30	350	8	6.9	112	310	570	--	7.5
AUG											
06...	230	93	24	280	7	6.7	100	230	460	0.3	5.7
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	250	110	29	350	8	7.1	140	270	580	--	10

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB										
19...	1500	--	<0.01	0.10	0.04	0.36	0.4	0.02	<10	<10
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	<0.01	0.10	0.06	0.34	0.4	0.02	<10	<10
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	1500	--	<0.01	0.10	0.08	0.42	0.5	0.02	<10	<10
MAY										
07...	1500	--	0.01	<0.10	0.03	0.47	0.5	0.01	20	<10
07...	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--
07...	--	0.19	0.01	0.20	0.06	0.44	0.5	0.02	20	<10
07...	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--
07...	1500	0.27	0.03	0.30	0.11	0.79	0.9	0.10	10	240
AUG										
06...	1200	--	<0.01	<0.10	0.02	0.58	0.6	0.02	40	<10
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	<0.01	<0.10	0.04	0.46	0.5	0.02	20	10
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	<0.01	<0.10	0.05	0.55	0.6	0.02	<10	200
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	1400	--	<0.01	<0.10	0.98	0.72	1.7	0.23	130	1600

LAKE WHITNEY NEAR WHITNEY, TX--Continued

315214097222001 - LAKE WHITNEY SITE AL

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB							
19...	1020	1.00	2350	8.20	11.5	9.5	90
19...	1022	10.0	2350	8.20	10.5	9.4	87
19...	1024	20.0	2350	8.20	10.5	9.4	87
19...	1026	30.0	2350	8.20	10.0	9.4	86
19...	1028	40.0	2350	8.20	10.0	9.4	86
19...	1030	50.0	2350	8.20	9.5	9.4	--
MAY							
07...	0940	1.00	2510	8.20	20.5	7.4	84
07...	0942	10.0	2510	8.10	20.5	7.2	82
07...	0944	20.0	2510	8.10	20.5	6.9	79
07...	0946	30.0	2510	8.10	20.0	6.8	77
07...	0948	40.0	2510	8.00	20.0	6.2	70
07...	0950	50.0	2510	7.80	19.0	5.5	61
AUG							
06...	0910	1.00	2050	8.00	28.5	6.0	--
06...	0912	10.0	2060	7.90	28.5	5.5	--
06...	0914	20.0	2100	7.50	28.0	2.6	--
06...	0916	30.0	2110	7.40	28.0	2.1	--
06...	0918	40.0	2200	7.30	26.5	0.2	3
06...	0920	50.0	2300	7.30	25.5	0.2	3

315432097234601 - LAKE WHITNEY SITE CC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB							
19...	1130	1.00	2400	8.20	12.0	9.5	92
19...	1132	10.0	2400	8.20	11.0	9.4	89
19...	1134	20.0	2400	8.20	10.5	9.3	87
19...	1136	30.0	2400	8.20	10.0	9.3	86
19...	1138	40.0	2400	8.20	10.0	9.3	86
19...	1140	50.0	2400	8.20	10.0	9.0	83
19...	1142	60.0	2400	8.20	9.5	8.9	--
19...	1144	70.0	2400	8.20	9.5	8.9	--
19...	1146	80.0	2400	8.20	9.5	8.8	--
19...	1147	85.0	2400	8.20	9.5	8.8	--
MAY							
07...	1130	1.00	2510	8.30	21.5	8.0	94
07...	1132	10.0	2510	8.30	21.5	8.0	94
07...	1134	20.0	2510	8.30	21.5	7.8	92
07...	1136	30.0	2510	8.30	21.5	7.7	91
07...	1138	40.0	2510	8.20	21.0	7.0	82
07...	1140	50.0	2510	7.80	19.5	4.6	52
07...	1142	60.0	2510	7.50	17.5	3.1	34
07...	1144	70.0	2510	7.40	17.0	2.4	26
07...	1145	85.0	2510	7.40	16.0	1.9	20
AUG							
06...	1104	1.00	2020	8.00	29.0	6.1	--
06...	1106	10.0	2020	8.00	29.0	6.1	--
06...	1108	20.0	2020	8.00	28.5	5.8	--
06...	1110	30.0	2020	7.90	28.5	5.4	--
06...	1112	40.0	2170	7.30	26.5	0.2	3
06...	1114	50.0	2300	7.30	25.0	0.2	2
06...	1116	60.0	2430	7.30	23.5	0.2	2
06...	1118	70.0	2430	7.30	22.5	0.2	2
06...	1120	80.0	2500	7.30	21.5	0.2	2
06...	1122	90.0	2500	7.30	20.5	0.2	2

LAKE WHITNEY NEAR WHITNEY, TX--Continued

315722097240201 - LAKE WHITNEY SITE DC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)
FEB											
19...	1206	1.00	2400	8.30	13.0	1.80	9.3	92	--	--	440
19...	1208	10.0	2400	8.20	11.0	--	9.3	88	--	--	--
19...	1210	20.0	2400	8.20	10.5	--	9.2	86	--	--	--
19...	1212	30.0	2400	8.20	10.0	--	9.2	85	--	--	--
19...	1214	40.0	2400	8.20	10.0	--	9.2	85	--	--	--
19...	1216	50.0	2400	8.20	9.5	--	9.1	--	--	--	--
19...	1218	60.0	2400	8.20	9.5	--	9.1	--	--	--	--
19...	1220	70.0	2400	8.20	9.5	--	9.1	--	--	--	--
19...	1221	75.0	2400	8.10	9.5	--	9.0	--	--	--	440
MAY											
07...	1250	1.00	2500	8.30	22.0	1.30	7.9	94	<1	K1	450
07...	1252	10.0	2500	8.30	22.0	--	7.5	89	--	--	--
07...	1254	20.0	2500	8.30	22.0	--	7.7	92	--	--	--
07...	1256	30.0	2500	8.30	22.0	--	7.7	92	--	--	--
07...	1258	40.0	2500	8.30	22.0	--	7.5	89	--	--	--
07...	1300	50.0	2500	8.20	21.5	--	7.1	84	--	--	--
07...	1302	60.0	2500	8.00	21.0	--	5.7	66	--	--	--
07...	1304	70.0	2500	7.40	19.0	--	2.0	22	--	--	470
AUG											
06...	1142	1.00	2010	8.00	29.5	1.90	6.0	--	<2	<2	340
06...	1144	10.0	2010	8.00	29.5	--	6.0	--	--	--	--
06...	1146	20.0	2010	8.00	29.0	--	5.9	--	--	--	--
06...	1148	30.0	2010	7.60	28.5	--	3.7	--	--	--	--
06...	1149	35.0	2010	7.60	29.0	--	3.7	--	--	--	--
06...	1150	40.0	2060	7.30	28.0	--	0.2	--	--	--	--
06...	1152	50.0	2160	7.30	26.0	--	0.2	3	--	--	--
06...	1154	60.0	2300	7.30	24.5	--	0.2	2	--	--	--
06...	1156	70.0	2360	7.30	23.5	--	0.2	2	--	--	--
06...	1158	76.0	2360	7.30	23.5	--	0.2	2	--	--	390

DATE	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)
FEB										
19...	330	120	34	370	8	6.9	106	300	580	6.1
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	330	120	34	370	8	6.8	108	310	590	6.1
MAY										
07...	340	130	30	350	7	6.9	113	310	580	5.7
07...	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--
07...	360	140	30	350	7	6.9	118	310	580	7.4
AUG										
06...	230	95	24	270	7	6.7	102	230	440	6.1
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	260	110	29	330	8	6.8	138	250	540	8.5

315722097240201 - LAKE WHITNEY SITE DC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
FEB										
19...	1500	--	<0.01	<0.10	0.04	0.36	0.4	0.02	20	<10
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	<0.01	<0.10	0.08	0.32	0.4	0.02	20	10
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	1500	--	<0.01	<0.10	0.10	0.4	0.5	0.03	50	30
MAY										
07...	1500	--	<0.01	<0.10	0.03	0.47	0.5	0.01	20	<10
07...	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--
07...	--	--	<0.01	<0.10	0.02	0.48	0.5	0.02	20	<10
07...	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--
07...	--	--	0.01	<0.10	0.06	1.0	1.1	0.03	20	30
07...	1500	0.17	0.03	0.20	0.18	0.52	0.7	0.05	20	430
AUG										
06...	1100	--	<0.01	<0.10	0.03	0.47	0.5	0.02	7	<1
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	<0.01	<0.10	0.05	0.55	0.6	0.02	<10	10
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	<0.01	<0.10	0.08	0.32	0.4	0.02	20	190
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	1400	--	<0.01	<0.10	1.00	0.5	1.5	0.17	180	1400

320122097260901 - LAKE WHITNEY SITE FC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB								
19...	1318	1.00	2400	8.20	15.5	1.20	9.3	97
19...	1320	10.0	2420	8.10	11.0	--	9.3	88
19...	1322	20.0	2420	8.10	10.0	--	9.3	86
19...	1324	30.0	2420	8.10	10.0	--	9.2	85
19...	1326	40.0	2420	8.00	9.5	--	9.2	--
19...	1328	50.0	2420	8.00	9.5	--	9.1	--
19...	1330	54.0	2420	7.90	9.5	--	9.1	--
MAY								
07...	1400	1.00	2500	8.30	23.0	0.8	7.9	96
07...	1402	10.0	2500	8.30	23.0	--	7.8	95
07...	1404	20.0	2500	8.20	22.5	--	7.3	88
07...	1406	30.0	2500	8.10	22.0	--	6.3	75
07...	1408	40.0	2500	7.90	21.5	--	5.4	64
07...	1410	50.0	2500	7.60	21.5	--	3.6	42
AUG								
06...	1300	1.00	1970	8.30	30.0	1.30	7.4	--
06...	1302	10.0	1970	8.10	29.5	--	6.6	--
06...	1304	20.0	1980	7.90	29.5	--	5.4	--
06...	1306	30.0	2000	7.60	29.0	--	4.1	--
06...	1307	35.0	2040	7.30	29.0	--	1.5	--
06...	1308	40.0	2070	7.30	28.5	--	0.2	--
06...	1310	53.0	2200	7.30	26.0	--	0.2	3

LAKE WHITNEY NEAR WHITNEY, TX--Continued

320122097260901 - LAKE WHITNEY SITE FC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB								
19...	<0.01	<0.10	0.03	0.37	0.4	0.03	30	<10
19...	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--
19...	<0.01	<0.10	0.09	0.31	0.4	0.03	10	<10
19...	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--
19...	<0.01	<0.10	0.09	0.61	0.7	0.04	10	20
MAY								
07...	<0.01	<0.10	0.02	0.48	0.5	0.02	10	<10
07...	--	--	--	--	--	--	--	--
07...	<0.01	<0.10	0.04	0.46	0.5	0.02	40	10
07...	--	--	--	--	--	--	--	--
07...	<0.01	<0.10	0.12	0.48	0.6	0.04	20	50
07...	<0.01	<0.10	0.29	0.51	0.8	0.06	20	380
AUG								
06...	<0.01	<0.10	0.03	0.77	0.8	0.03	20	20
06...	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--
06...	<0.01	<0.10	0.08	0.52	0.6	0.03	20	80
06...	--	--	--	--	--	--	--	--
06...	<0.01	<0.10	0.23	0.97	1.2	0.05	20	820
06...	<0.01	<0.10	1.10	0.6	1.7	0.20	320	1900

315907097222801 - LAKE WHITNEY SITE P07

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
FEB								
19...	1241	1.00	2350	8.30	13.5	2.10	9.1	91
19...	1243	10.0	2400	8.30	11.5	--	9.0	86
19...	1245	20.0	2400	8.10	11.0	--	8.6	81
19...	1247	30.0	2400	8.00	10.5	--	8.3	77
19...	1249	43.0	2400	7.90	10.0	--	8.1	75
MAY								
07...	1320	1.00	2500	8.40	23.0	1.30	7.6	92
07...	1322	10.0	2500	8.30	22.5	--	8.1	97
07...	1324	20.0	2500	8.30	22.5	--	7.9	95
07...	1326	30.0	2500	8.30	22.5	--	7.7	92
07...	1328	40.0	2500	8.10	22.0	--	6.5	77
AUG								
06...	1215	1.00	1960	8.10	30.0	1.80	6.8	--
06...	1217	10.0	1960	8.10	30.0	--	6.4	--
06...	1219	20.0	1960	7.90	29.5	--	5.6	--
06...	1220	25.0	1960	7.90	29.5	--	5.3	--
06...	1222	30.0	2000	7.30	29.0	--	1.4	--
06...	1224	40.0	2030	7.30	28.0	--	0.2	--
06...	1226	48.0	2100	7.30	26.5	--	0.2	3

DATE	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB								
19...	<0.01	<0.10	0.04	0.36	0.4	0.02	30	<10
19...	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--
19...	<0.01	<0.10	0.10	0.3	0.4	0.03	10	30
MAY								
07...	<0.01	<0.10	<0.01	--	0.5	0.02	<10	20
07...	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--
07...	0.01	<0.10	0.05	0.45	0.5	0.02	20	20
AUG								
06...	<0.01	<0.10	0.03	0.57	0.6	0.02	20	<10
06...	--	--	--	--	--	--	--	--
06...	<0.01	<0.10	0.02	0.58	0.6	0.02	20	10
06...	--	--	--	--	--	--	--	--
06...	<0.01	<0.10	0.06	0.94	1.0	0.02	20	50
06...	--	--	--	--	--	--	--	--
06...	<0.01	<0.10	0.48	0.42	0.9	0.05	130	650

LAKE WHITNEY NEAR WHITNEY, TX--Continued

320401097291301 - LAKE WHITNEY SITE P11

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)
FEB											
19...	1405	1.00	2250	8.30	15.0	1.00	9.9	102	--	--	390
19...	1406	1.60	--	--	--	--	--	--	--	--	--
19...	1407	10.0	2360	8.00	11.5	--	8.9	85	--	--	--
19...	1409	22.0	2430	7.80	10.0	--	7.4	68	--	--	440
MAY											
07...	1430	1.00	2500	8.20	23.0	0.6	7.3	88	<1	<1	470
07...	1431	1.00	--	--	--	--	--	--	--	--	--
07...	1432	10.0	2500	8.20	23.0	--	7.2	87	--	--	--
07...	1434	20.0	2500	8.10	23.0	--	6.5	79	--	--	470
AUG											
06...	1335	1.00	2110	7.90	30.5	1.10	6.0	--	<2	K2	350
06...	1336	1.00	--	--	--	--	--	--	--	--	--
06...	1337	10.0	2110	7.60	30.0	--	4.6	--	--	--	--
06...	1339	20.0	2110	7.50	30.0	--	3.7	--	--	--	--
06...	1341	29.0	2110	7.40	30.0	--	3.0	--	--	--	340

DATE	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)
FEB										
19...	280	110	29	330	8	6.7	112	270	520	5.9
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	330	120	34	360	8	6.7	113	290	560	6.0
MAY										
07...	340	140	30	340	7	6.9	131	300	560	3.4
07...	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--
07...	340	140	30	340	7	6.8	131	300	570	3.6
AUG										
06...	240	98	25	290	7	6.9	103	240	460	7.5
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	230	97	24	290	7	6.9	107	240	460	7.4

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
FEB										
19...	1300	0.28	0.02	0.30	0.04	0.66	0.7	0.08	10	<10
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	1400	0.19	0.01	0.20	0.12	0.58	0.7	0.08	20	10
MAY										
07...	1500	--	<0.01	<0.10	0.02	0.68	0.7	0.04	20	<10
07...	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--
07...	1500	--	<0.01	<0.10	0.05	0.65	0.7	0.05	20	20
AUG										
06...	1200	--	<0.01	<0.10	0.12	0.78	0.9	0.05	40	200
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	1200	--	<0.01	<0.10	0.05	0.65	0.7	0.05	40	60

315500097204001 - LAKE WHITNEY SITE P15

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB								
19...	1102	1.00	2350	8.30	14.0	1.20	9.4	95
19...	1104	10.0	2350	8.20	12.0	--	9.2	89
19...	1106	21.0	2350	8.20	11.0	--	9.1	86
MAY								
07...	1105	1.00	2540	8.40	22.5	0.3	7.8	92
07...	1107	12.0	2540	8.10	22.0	--	6.7	79
AUG								
06...	1030	1.00	2030	8.30	29.5	1.80	7.1	--
06...	1032	10.0	2030	8.30	29.5	--	6.9	--
06...	1034	20.0	2040	8.30	29.0	--	6.9	--
06...	1036	27.0	2030	8.10	29.0	--	6.3	--

LAKE WHITNEY NEAR WHITNEY, TX--Continued

315500097204001 - LAKE WHITNEY SITE P15--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB								
19...	<0.01	<0.10	0.03	0.47	0.5	0.02	10	<10
19...	--	--	--	--	--	--	--	--
19...	<0.01	0.10	0.05	0.35	0.4	0.02	20	<10
MAY								
07...	<0.01	<0.10	0.01	0.59	0.6	0.03	30	10
07...	<0.01	<0.10	0.03	0.67	0.7	0.03	60	30
AUG								
06...	<0.01	<0.10	0.03	0.57	0.6	0.02	20	<10
06...	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--
06...	<0.01	<0.10	0.03	0.57	0.6	0.03	10	20

Lake Whitney AC (315203097222601)

Phytoplankton Analyses October 1985 to September 1986

Date	2-19-86
Time	0931
TOTAL CELLS/ml	68,162
NUMBER OF SPECIES	18
DEPTH COLLECTED (ft.)	3.9

Organisms	Cells/ml
CHLOROPHYTA (Green algae)	
Ankistrodesmus falcatus	57
Chlamydomonas sp.	57
Chlorella sp.	568
Gloeocystis sp.	170
Kirchneriella lunaris var. *irregularis*	114
Scenedesmus quadricauda	114
Scenedesmus serratus	227
CYANOPHYTA (Blue-green algae)	
Aphanocapsa delicatissima	62253
Aphanocapsa elachista var. *conferta*	341
Chroococcus dispersus	1477
Dactylococcopsis fascicularis	170
Synechococcus elongatus	1704
EUGLENOPHYTA (Euglenoids)	
Euglena sp.	57
CRYPTOPHYTA (Cryptomonads)	
Chroomonas sp.	227
BACILLARIOPHYTA (Diatoms)	
Order Centrales	
Cyclotella ocellata	57
Rhizosolenia longiseta	398
Order Pennales	
Diploneis sp.	57
Nitzschia palea	114

Lake Whitney AC (315203097226O1)

Phytoplankton Analyses October 1985 to September 1986

Date	5-7-86
Time	1001
TOTAL CELLS/mL	50,226
NUMBER OF SPECIES	31
DEPTH COLLECTED (ft.)	2.8

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Ankistrodesmus nannoselene	57
Carteria sp.	57
Chlamydomonas sp.	57
Chlorella sp.	852
Chlorococcum sp.	1477
Chodatella sp.	57
Coelastrum sp.	454
Crucigenia irregularis	454
Crucigenia tetrapedia	341
Dictyosphaerium pulchellum	454
Mesotaenium sp.	170
Oocystis sp.	1022
Scenedesmus abundans	227
Scenedesmus quadricauda	852
Scenedesmus quadricauda var. *westii*	227
Scenedesmus serratus	1590
CYANOPHYTA (blue-green algae)	
Anabaena sp.	1136
Aphanocapsa delicatissima	7384
Aphanocapsa elachista	2840
Aphanothece sp.	10224
Chroococcus sp.	568
Dactylococcopsis fascicularis	227
Oscillatoria angustissima	568
Synechococcus elongatus	2613
Synechococcus lineare var. *spirale*	4430
Synechococcus sp.	10678
Synechocystis sp.	909
CRYPTOPHYTA (cryptomonads)	
Cryptomonas sp.	57
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Cyclotella atomus ?	57
Rhizosolenia longiseta	170
Order Pennales	
Nitzschia acicularis	57

LAKE WHITNEY NEAR WHITNEY, TX--Continued

Lake Whitney AC (315203097226O1)

Phytoplankton Analyses October 1985 to September 1986

Date	8-6-86
Time	0931
TOTAL CELLS/mL	315,211
NUMBER OF SPECIES	40
DEPTH COLLECTED (ft.)	1.0

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Ankistrodesmus nannoselene	58
Chlamydomonas sp.	568
Chlorococcum sp.	568
Cosmarium sp.	114
Gloeocystis sp.	568
Kirchneriella obesa	1136
Scenedesmus sp.	1704
Tetraedron minimum	142
Tetraedron trigonum	284
CYANOPHYTA (blue-green algae)	
Anabaenopsis elenkinii	1420
Anabaenopsis raciborskii ?	39760
Aphanocapsa delicatissima	45440
Aphanothece sp.	30672
Chroococcus limneticus	2840
Chroococcus multicoloratus	3408
Chroococcus varius	10224
Dactylococcopsis acicularis	2272
Dactylococcopsis fascicularis	36920
Lyngbya limnetica	35216
Lyngbya nana	17040
Merismopedia tenuissima	114
Oscillatoria angustissima	4544
Oscillatoria limnetica	56800
Oscillatoria planctonica	4544
Phormidium sp.	3976
Pseudoanabaena sp.	10792
Synechococcus aeruginosa	568
Synechococcus lineare	568
Synechococcus sp.	568
EUGLENOPHYTA (euglenoid algae)	
Phacus sp.	142
PYRRHOPHYTA (dinoflagellates)	
Peridinium sp.	142
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Chaetoceros sp.	568
Cyclotella meneghiniana	446
Cyclotella stelligera	122
Rhizosolenia eriensis	28
Order Pennales	
Diploneis sp.	568
Nitzschia acicularis	14
Nitzschia palea	114
Nitzschia paleacea	227
Synedra minuscula	12

Lake Whitney P-11 (320401097291301)

Phytoplankton Analyses October 1985 to September 1986

Date	2-19-86
Time	1406
TOTAL CELLS/ml	81,797
NUMBER OF SPECIES	26
DEPTH COLLECTED (ft.)	1.6

Organisms	Cells/ml
CHLOROPHYTA (Green algae)	
Ankistrodesmus nannoselene	227
Chlorella sp.	10906
Chlorococcum humicola	568
Golenkinia radiata	114
Mesotaenium sp.	227
Oocystis lacustris	909
Oocystis sp.	114
Scenedesmus armatus	454
Scenedesmus sp.	227
Tetraedron minimum	114
CYANOPHYTA (Blue-green algae)	
Aphanocapsa delicatissima	17267
Aphanocapsa elachista var. conferta	6816
Aphanothece saxicola	1937
Chroococcus limneticus	2999
Chroococcus turgidus	19882
Chroococcus turicensis	13405
Dactylococcopsis fascicularis	1250
Dactylococcopsis raphidioides	114
Synechococcus elongatus	2954
BACILLARIOPHYTA (Diatoms)	
Order Centrales	
Rhizosolenia longiseta	341
Stephanodiscus tenuis	609
Order Pennales	
Diploneis sp.	114
Nitzschia acicularis	114
Nitzschia cryptocephala	14
Nitzschia palea	114
Nitzschia symmetrica	7

Lake Whitney P-11 (320401097291301)

Phytoplankton Analyses October 1985 to September 1986

Date	5-7-86
Time	1431
TOTAL CELLS/mL	51,802
NUMBER OF SPECIES	35
DEPTH COLLECTED (ft.)	1.0

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Ankistrodesmus nannoselene	341
Chlamydomonas sp.	57
Chlorococcum sp.	1534
Closterium sp.	57
Crucigenia tetrapedia	682
Gloeocystis sp.	170
Kirchneriella contorta	170
Kirchneriella lunaris	1022
Kirchneriella obesa	170
Mesotaenium sp.	227
Oocystis sp.	2499
Phacotus lenticularis	227
Scenedesmus quadricauda	284
Scenedesmus serratus	738
Tetrastrum minimum	57
Tetrastrum staurogeniaeforme	227
CYANOPHYTA (blue-green algae)	
Aphanocapsa delicatissima	20448
Aphanocapsa elachista	1988
Chroococcus sp.	2045
Coelosphaerium sp.	1136
Dactylococcopsis fascicularis	341
Dactylococcopsis sp.	114
Synechococcus elongatus	3749
Synechococcus lineare	454
Synechococcus sigmoidea	114
Synechococcus sp.	341
Synechocystis sp.	909
EUGLENOPHYTA (euglenoid algae)	
Euglena sp.	57
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Cyclotella atomus ?	10848
Cyclotella meneghiniana	227
Stephanodiscus astrea	7
Stephanodiscus hantzschii	37
Order Pennales	
Diploneis sp.	341
Navicula schroeteri var. *escambia*	14
Nitzschia acicularis	170

LAKE WHITNEY NEAR WHITNEY, TX--Continued

Lake Whitney P-11 (320401097291301)

Phytoplankton Analyses October 1985 to September 1986

Date	8-6-86
Time	1336
TOTAL CELLS/mL	521,315
NUMBER OF SPECIES	46
DEPTH COLLECTED (ft.)	1.0

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Ankistrodesmus nannoselene	341
Chlamydomonas sp.	114
Franceia sp.	114
Kirchneriella lunaris	568
Platymonas sp.	1136
Scenedesmus armatus	227
Scenedesmus sp.	227
Schroederia setigera	114
Tetraedron minimum	114
CYANOPHYTA (blue-green algae)	
Anabaenopsis elenkinii	3408
Anabaenopsis raciborskii ?	29536
Anabaenopsis sp.	10224
Aphanocapsa delicatissima	75544
Chroococcus limneticus	5680
Chroococcus varius	13632
Chroococcus sp.	114
Dactylococcopsis acicularis	22720
Dactylococcopsis fascicularis	18744
Lyngbya limnetica	47144
Lyngbya nana	14768
Merismopedia tenuissima	21584
Oscillatoria angustissima	44304
Oscillatoria limnetica	130072
Oscillatoria planctonica	22152
Oscillatoria sp.	10224
Pseudoanabaena sp.	43168
Synechococcus lineare	568
Synechococcus sp.	2272
EUGLENOPHYTA (euglenoid algae)	
Euglena sp.	114
Phacus sp.	114
Trachelomonas hispida	227
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Chaetoceros sp.	1250
Cyclotella meneghiniana	446
Cyclotella stelligera	81
Cyclotella sp.	41
Rhizosolenia eriensis	114
Order Pennales	
Diploneis sp.	19
Nitzschia acicularis	2
Nitzschia hantzschiana	5
Nitzschia inconspicua	2
Nitzschia microcephala	14
Nitzschia obtusa	2
Nitzschia palea	31
Nitzschia paleacea	31
Synedra minuscula	6
Synedra rumpens	3

08092600 BRAZOS RIVER AT WHITNEY DAM NEAR WHITNEY, TX

LOCATION.--Lat 31°52'00", long 97°22'00", Hill County, Hydrologic Unit 12060202, immediately below Whitney Dam, 3.4 mi upstream from gaging station near Whitney, 4.0 mi upstream from Iron Creek, and 7.4 mi southwest of Whitney.

DRAINAGE AREA.--26,190 mi , of which 9,566 mi probably is noncontributing.

PERIOD OF RECORD.--Chemical analyses: August 1946 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1947 to current year.
WATER TEMPERATURES: October 1947 to current year.

REMARKS.--Records of discharge are given for gaging station 08093100. No appreciable inflow between dam and gaging station except during periods of heavy local rains. Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the Geological Survey District office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,620 microsiemens Aug. 24, 1978; minimum daily, 203 microsiemens May 23, 1952.
WATER TEMPERATURES: Maximum daily, 33.5°C July 3, 1973; minimum daily, 0.0°C Jan. 28, 29, 1948.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,530 microsiemens May 6, 13, 17; minimum daily, 2,040 microsiemens Sept. 21, 27-29.
WATER TEMPERATURES: Maximum daily, 26.0°C Sept. 17; minimum daily, 8.0°C Jan. 9.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
MAR								
03...	1245	550	2380	420	320	120	30	340
APR								
14...	1130	475	2480	360	250	100	27	360
JUN								
02...	1400	760	2470	380	270	100	31	370

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
MAR								
03...	7	6.8	102	290	540	0.3	3.6	1400
APR								
14...	9	7.5	107	270	550	0.3	7.9	1400
JUN								
02...	9	6.8	107	270	540	0.3	5.9	1400

MONTHLY AND ANNUAL MEANS AND LOADS FOR OCTOBER 1985 TO SEPTEMBER 1986

MONTH	YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED SOLIDS (MG/L)	DISSOLVED SOLIDS (TONS)	DISSOLVED CHLORIDE (MG/L)	DISSOLVED CHLORIDE (TONS)	DISSOLVED SULFATE (MG/L)	DISSOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT.	1985	11670	2360	1360	42800	530	16800	270	8480	410
NOV.	1985	11647	2410	1390	43600	540	17100	280	8650	420
DEC.	1985	19492	2460	1410	74400	560	29400	280	14800	420
JAN.	1986	17938	2440	1410	68100	550	26800	280	13500	420
FEB.	1986	17134	2490	1430	66300	570	26200	290	13200	420
MAR.	1986	12038	2500	1440	46900	570	18500	290	9340	430
APR.	1986	11261	2510	1450	44100	570	17500	290	8790	430
MAY	1986	18720	2510	1450	73200	570	29000	290	14600	430
JUNE	1986	77115	2440	1400	292000	550	115100	280	58100	420
JULY	1986	29668	2430	1400	112000	550	44100	280	22200	420
AUG.	1986	21987	2370	1360	80800	530	31700	270	16000	410
SEPT	1986	63187	2120	1210	206000	460	79300	240	40400	380
TOTAL		311857	**	**	1150000	**	451000	**	228000	**
WTD.AVG.		854	2380	1370	**	540	**	270	**	410

08092600 BRAZOS RIVER AT WHITNEY DAM NEAR WHITNEY, TX--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
EQUIVALENT MEAN

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2330	2400	2450	2420	2490	2500	2510	2440	2480	2500	2430	2300
2	2340	2400	2470	2420	2480	2500	2510	2520	2500	2500	2430	2290
3	2340	2400	2470	2420	2300	2500	2510	2520	2470	2500	2430	2250
4	2350	2400	2470	2420	2490	2500	2510	2520	2450	2500	2410	2260
5	2350	2410	2470	2420	2490	2500	2510	2520	2370	2490	2430	2240
6	2350	2400	2470	2430	2490	2500	2510	2530	2480	2480	2430	2150
7	2360	2400	2470	2430	2480	2500	2510	2520	2470	2470	2430	2210
8	2380	2400	2470	2430	2470	2500	2510	2520	2480	2430	2410	2070
9	2390	2400	2480	2430	2480	2490	2510	2520	2470	2450	2400	2130
10	2400	2400	2490	2430	2480	2490	2510	2430	2480	2430	2390	2150
11	2370	2420	2460	2430	2490	2500	2470	2520	2460	2470	2390	2140
12	2390	2420	2460	2430	2490	2500	2510	2520	2450	2460	2350	2110
13	2400	2420	2460	2440	2480	2500	2510	2530	2460	2450	2400	2110
14	2410	2420	2460	2440	2490	2500	2510	2520	2450	2430	2380	2110
15	2380	2420	2450	2440	2490	2500	2520	2520	2460	2420	2390	2110
16	2380	2420	2450	2450	2490	2500	2520	2520	2460	2420	2370	2100
17	2380	2420	2450	2440	2490	2500	2510	2530	2450	2430	2350	2100
18	2330	2430	2440	2460	2490	2500	2500	2520	2440	2410	2330	2090
19	2300	2420	2440	2450	2490	2500	2510	2520	2420	2410	2320	2080
20	2400	2410	2440	2460	2490	2500	2510	2520	2420	2380	2350	2060
21	2370	2400	2450	2450	2480	2500	2510	2520	2410	2290	2360	2040
22	2360	2410	2450	2450	2490	2500	2510	2520	2400	2390	2340	2050
23	2400	2420	2440	2460	2490	2500	2510	2520	2400	2420	2330	2060
24	2390	2400	2440	2460	2490	2500	2520	2520	2300	2440	2360	2060
25	2370	2420	2440	2460	2490	2500	2520	2510	2440	2450	2320	2060
26	2380	2430	2450	2460	2490	2500	2520	2510	2460	2450	2320	2060
27	2350	2420	2450	2470	2500	2510	2520	2520	2420	2440	2320	2040
28	2350	2420	2440	2470	2500	2510	2520	2510	2430	2440	2280	2040
29	2360	2430	2440	2460	---	2510	2520	2510	2420	2430	2300	2040
30	2360	2430	2470	2470	---	2510	2520	2500	2450	2420	2300	2060
31	2360	---	2450	2470	---	2510	---	2500	---	2420	2320	---
MEAN	2370	2410	2460	2440	2480	2500	2510	2510	2440	2440	2370	2120

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	19.0	14.0	10.0	13.0	12.0	---	19.0	22.0	23.0	23.0	24.0
2	21.0	18.0	13.0	10.0	13.0	12.0	16.0	19.0	22.0	23.0	23.0	24.0
3	22.0	18.0	14.0	10.0	12.0	12.0	16.0	20.0	21.0	23.0	23.0	24.0
4	22.0	18.0	15.0	11.0	12.0	12.0	16.0	19.0	21.0	23.0	24.0	24.0
5	20.0	18.0	14.0	10.0	12.0	12.0	17.0	19.0	21.0	23.0	24.0	24.0
6	20.0	19.0	13.0	9.0	11.0	12.0	17.0	19.0	22.0	25.0	23.0	24.0
7	21.0	18.0	14.0	9.0	11.0	12.0	17.0	19.0	22.0	23.0	23.0	24.0
8	21.0	18.0	13.0	9.0	11.0	13.0	17.0	19.0	22.0	23.0	23.0	25.0
9	21.0	19.0	15.0	8.0	11.0	13.0	17.0	21.0	22.0	23.0	24.0	25.0
10	22.0	19.0	15.0	9.0	10.0	13.0	16.0	19.0	22.0	24.0	23.0	25.0
11	22.0	18.0	13.0	10.0	9.0	14.0	16.0	20.0	22.0	24.0	24.0	25.0
12	21.0	18.0	13.0	9.0	9.0	13.0	17.0	20.0	23.0	23.0	24.0	25.0
13	22.0	18.0	12.0	10.0	10.0	15.0	16.0	20.0	23.0	23.0	23.0	25.0
14	21.0	19.0	10.0	10.0	10.0	14.0	---	20.0	23.0	23.0	24.0	25.0
15	21.0	18.0	10.0	9.0	11.0	---	18.0	20.0	23.0	23.0	24.0	25.0
16	22.0	18.0	10.0	10.0	12.0	14.0	18.0	21.0	23.0	23.0	24.0	25.0
17	20.0	18.0	11.0	11.0	11.0	14.0	17.0	21.0	23.0	23.0	24.0	26.0
18	22.0	18.0	11.0	11.0	11.0	14.0	17.0	20.0	23.0	23.0	24.0	24.0
19	22.0	19.0	10.0	10.0	11.0	14.0	18.0	20.0	23.0	23.0	24.0	25.0
20	21.0	17.0	11.0	10.0	11.0	14.0	18.0	21.0	24.0	23.0	24.0	25.0
21	21.0	17.0	10.0	10.0	11.0	14.0	18.0	21.0	24.0	24.0	24.0	25.0
22	21.0	17.0	11.0	10.0	12.0	14.0	18.0	21.0	24.0	24.0	24.0	25.0
23	21.0	18.0	10.0	10.0	11.0	15.0	18.0	21.0	24.0	23.0	23.0	25.0
24	21.0	17.0	10.0	10.0	12.0	15.0	18.0	22.0	23.0	23.0	24.0	25.0
25	21.0	17.0	---	11.0	12.0	15.0	18.0	22.0	23.0	23.0	24.0	25.0
26	21.0	18.0	9.0	11.0	12.0	---	18.0	22.0	23.0	23.0	24.0	25.0
27	20.0	17.0	9.0	10.0	12.0	15.0	18.0	21.0	23.0	23.0	24.0	25.0
28	20.0	15.0	10.0	10.0	12.0	15.0	18.0	21.0	23.0	23.0	24.0	25.0
29	20.0	16.0	10.0	10.0	---	16.0	19.0	21.0	23.0	23.0	24.0	25.0
30	20.0	16.0	10.0	10.0	---	15.0	18.0	21.0	23.0	23.0	23.0	25.0
31	20.0	---	10.0	11.0	---	15.0	---	21.0	---	24.0	23.0	---
MEAN	21.0	18.0	11.5	10.0	11.5	13.5	17.5	20.5	22.5	23.0	23.5	25.0

08093100 BRAZOS RIVER NEAR AQUILLA, TX

LOCATION.--Lat 31°48'44", long 97°17'51", Bosque County, Hydrologic Unit 12060202, on right bank at downstream side of highway embankment near right end of bridge on Farm Road 2114, 2.0 mi downstream from Tener Creek, 4.9 mi downstream from Iron Creek, 5.4 mi southwest of Aquilla, 9.0 mi downstream from Whitney Dam, and at mile 434.0.

DRAINAGE AREA.--27,244 mi^2, of which 9,566 mi^2, probably is noncontributing.

PERIOD OF RECORD.--October 1938 to current year. Prior to October 1974, published as Brazos River near Whitney.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 404.29 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1948, nonrecording gage at site 13.9 mi upstream at datum 27.77 ft higher. Oct. 1, 1948, of Feb. 12, 1975, at site 5.6 mi upstream at datum 13.10 ft higher.

REMARKS.--Estimated daily dischages: Oct. 22-29. Records good except those for estimated daily discharges, which are fair. Most of flow are releases from Lake Whitney (station 08092500). The Brazos River at Whitney Dam (station 08092600) uses the discharge record at this station for publication of water-quality records. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--13 years (water years 1939-51) prior to regulation by Lake Whitney, 1,802 ft^3/s (1,306,000 acre-ft/yr); 35 years (water-years 1952-86) regulated, unadjusted, 1,384 ft^3/s (1,003,000 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 71,800 ft^3/s May 18, 1949 (gage height, 31.03 ft), at site and datum then in use (Oct. 1, 1948, to Feb. 12, 1975); minimum daily, 0.4 ft^3/s May 9, 1953. Maximum discharge since construction of Whitney Dam in 1951, 58,200 ft^3/s May 28, 1957 (gage height, 27.34 ft), at site and datum in use Oct. 1 1948, to Feb. 12, 1975).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1853, 45 ft May 9, 1922, at site and datum in use Oct. 1, 1948, to Feb. 12, 1975, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,160 ft^3/s June 11 at 0700 hours (gage height, 13.70 ft); minimum daily, 44 ft^3/s Mar. 6-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	120	309	68	725	82	728	382	858	532	1070	818	89
2	80	570	651	795	68	658	183	703	759	562	844	275
3	382	538	435	502	139	549	349	299	757	636	888	1800
4	78	517	566	334	102	402	357	466	670	619	452	733
5	203	529	560	554	186	54	226	715	1060	600	470	2150
6	185	532	560	505	686	44	59	809	955	618	858	1540
7	211	691	277	822	731	44	177	669	927	619	849	1330
8	397	882	292	658	933	44	327	712	815	615	951	2180
9	385	903	321	1210	796	46	58	616	1670	626	835	4380
10	172	578	894	726	718	46	60	708	2700	1370	442	4300
11	178	693	1350	83	846	480	56	686	4860	1710	89	4210
12	172	494	651	69	797	497	215	909	4300	968	687	4110
13	183	310	463	397	774	474	515	705	4260	616	890	4140
14	181	364	1150	789	637	491	472	716	4220	671	870	4140
15	184	650	1140	716	452	586	421	721	4210	1340	869	4170
16	181	203	1130	432	567	497	401	728	4220	1490	868	4160
17	182	359	1140	454	729	1190	350	715	4220	1470	866	4170
18	368	270	988	2220	765	1620	349	222	4190	936	945	4130
19	1030	74	1160	1150	683	1110	338	76	4280	893	860	2750
20	769	168	856	415	802	63	414	454	3090	871	877	665
21	1700	82	557	357	688	142	445	730	4150	2310	464	719
22	411	188	375	482	261	72	584	809	4190	1300	522	575
23	422	87	533	587	334	48	574	743	4160	1470	457	1190
24	458	69	509	360	333	46	587	457	2210	1060	522	1150
25	404	506	512	84	1910	863	469	321	1820	722	916	1160
26	459	338	494	347	750	73	80	436	1480	665	1180	1160
27	436	524	508	625	678	172	225	485	1470	775	1130	237
28	424	85	86	543	687	341	941	848	1470	699	503	125
29	277	68	73	82	---	215	798	1080	1470	935	511	279
30	461	66	430	356	---	55	849	246	2000	725	469	1170
31	577	---	763	359	---	388	---	78	---	707	85	---
TOTAL	11670	11647	19492	17938	17134	12038	11261	18720	77115	29668	21987	63187
MEAN	376	388	629	579	612	388	375	604	2571	957	709	2106
MAX	1700	903	1350	2220	1910	1620	941	1080	4860	2310	1180	4380
MIN	78	66	68	69	68	44	56	76	532	562	85	89
AC-FT	23150	23100	38660	35580	33990	23880	22340	37130	153000	58850	43610	125300

CAL YR 1985 TOTAL 421584 MEAN 1155 MAX 4560 MIN 38 AC-FT 836200
WTR YR 1986 TOTAL 311857 MEAN 854 MAX 4860 MIN 44 AC-FT 618600

08093160 AQUILLA CREEK NEAR PEORIA, TX
RECONNAISSANCE PARTIAL-RECORD STATION

LOCATION.--Lat 31°58'40", long 97°14'44", Hill County, Hydrologic Unit 12060202, at bridge on State Highway 22 and 1.4 mi west of Peoria.

DRAINAGE AREA.--83.8 mi .

PERIOD OF RECORD.--Periodic discharge measurements: October 1983 to September 1984.
Chemical and biochemical analyses: October 1984 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3
JUN												
03...	1300	1.8	360	7.40	22.5	100	130	6.5	77	1.7	130	33
SEP												
15...	1730	0.04	770	7.80	31.0	28	4.2	6.9	95	1.6	310	62

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
JUN											
03...	46	3.6	15	0.6	8.9	97	45	14	0.3	8.2	200
SEP											
15...	110	7.8	45	1	5.1	245	100	40	0.5	17	470

DATE	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)
JUN											
03...	161	33	0.82	0.08	0.90	0.11	1.3	1.4	0.31	13	3
SEP											
15...	5	3	0.47	0.03	0.50	0.01	0.96	1.0	0.07	8.7	--

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
JUN											
03...	58	<1	<10	1	150	<5	14	<0.1	<1	<1	26
SEP											
15...	--	--	--	--	--	--	--	--	--	--	--

08093250 HACKBERRY CREEK AT HILLBORO, TX

LOCATION.--Lat 32°00'20", long 97°08'59", Hill County, Hydrologic Unit 12060202, at downstream side of highway embankment near right end of bridge on State Highway 22, 0.1 mi upstream from Little Hackberry Creek, and 1.2 mi west of county courthouse in Hillsboro.

DRAINAGE AREA.--57.9 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1979 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 546.00 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 1-17, 21-27, Mar. 17, Mar. 19 to Apr. 9, Apr. 11-19, 21-30, May 14-16, 23-31, and June 2-4. Records fair except those below 2.0 ft³/s, which are poor. No known diversions above station.

AVERAGE DISCHARGE.--7 years (water years 1980-86), 19.9 ft³/s (14,420 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,050 ft³/s June 16, 1981 (gage height, 18.95 ft); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1936, 18.3 ft September 1936, from information by State Department of Highways and Public Transportation.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 19	1645	1,340	13.73	June 5	1845	1,430	13.84
Dec. 11	0215	*6,140	16.52	June 11	1130	2,180	14.56
May 17	2245	1,070	13.34				

Minimum discharge, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	5.3	.40	5.1	.93	.06	.08	4.7	2.6	.01	.00	.00
2	.00	3.7	.29	4.6	1.4	.02	.08	1.4	3.8	19	.00	.01
3	.00	2.9	.02	4.5	124	1.2	.08	1.2	1.9	25	.00	.00
4	.00	2.1	.01	5.0	122	2.6	.07	.77	1.2	24	.00	.00
5	.00	2.0	.01	3.3	63	1.4	.07	.46	638	6.9	.00	1.7
6	.00	1.8	.01	4.4	166	.36	.07	.25	453	1.4	.00	117
7	.00	1.6	.03	4.6	35	.11	.07	.13	120	.15	.00	40
8	.00	.93	.04	2.8	24	.09	.07	.04	43	.24	.00	14
9	.00	.93	.01	2.0	29	.20	.06	17	56	.04	.00	8.3
10	.00	.93	620	2.2	35	.44	4.0	84	28	.00	.00	5.6
11	.00	.93	2620	2.3	21	.19	1.2	31	1160	.00	10	3.2
12	.00	1.2	274	2.3	17	1.1	.91	12	102	.00	.61	1.1
13	.00	1.5	119	2.4	15	.96	.72	7.7	43	.00	.00	.86
14	.00	1.3	44	2.3	13	.40	.57	5.4	31	.00	.00	.23
15	.00	1.1	32	2.2	13	.24	.41	5.1	25	.00	.00	.18
16	.00	1.3	25	2.1	12	.06	.23	4.7	21	.00	.00	.44
17	.00	.83	20	3.6	12	.15	.10	369	41	.00	.00	.01
18	45	.10	17	3.9	9.7	.30	.04	267	85	.00	.00	.01
19	811	1.7	14	3.2	8.3	.16	.02	25	36	.00	.00	.00
20	131	1.3	14	2.8	7.2	.14	12	14	27	.00	.00	.00
21	13	.91	12	2.4	4.7	.12	10	9.0	19	.00	.00	.00
22	5.0	.65	12	1.6	3.1	.11	7.4	5.2	16	.00	.00	.00
23	3.0	.65	11	1.2	2.9	.10	6.6	4.4	13	.00	.00	.00
24	1.3	.23	9.6	.78	3.0	.10	5.8	3.7	9.9	.00	.00	.00
25	.29	.82	7.8	1.7	2.1	.10	5.0	3.2	7.6	.00	.00	.00
26	.02	1.1	7.7	1.3	2.2	.09	4.1	2.5	5.9	.00	.00	.00
27	.01	11	7.8	.72	1.8	.09	3.3	1.9	2.9	.00	.00	.00
28	.00	8.7	7.4	1.4	.53	.09	2.5	1.5	1.6	.00	.00	.00
29	.74	1.5	6.7	.82	---	.09	1.7	.89	.31	.00	.00	.00
30	2.8	.45	6.4	.54	---	.08	1.1	.43	.03	.00	.00	.00
31	11	---	6.5	.48	---	.08	---	.18	---	.00	.00	---
TOTAL	1024.16	59.46	3894.72	78.54	748.86	11.23	68.35	883.75	2994.74	76.74	10.61	192.64
MEAN	33.0	1.98	126	2.53	26.7	.36	2.28	28.5	99.8	2.48	.34	6.42
MAX	811	11	2620	5.1	166	2.6	12	369	1160	25	10	117
MIN	.00	.10	.01	.48	.53	.02	.02	.04	.03	.00	.00	.00
AC-FT	2030	118	7730	156	1490	22	136	1750	5940	152	21	382

CAL YR 1985 TOTAL 10873.15 MEAN 29.8 MAX 2620 MIN .00 AC-FT 21570
WTR YR 1986 TOTAL 10043.80 MEAN 27.5 MAX 2620 MIN .00 AC-FT 19920

08093250 HACKBERRY CREEK AT HILLBORO, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3
JAN 28...	1045	1.7	650	8.50	8.0	15	8.4	14.8	--	1.0	230	77
MAR 04...	1045	2.9	550	7.80	14.0	10	16	10.8	106	1.6	200	56
APR 15...	0945	0.41	860	7.90	16.0	15	15	11.5	118	1.1	230	62
JUN 03...	1030	2.1	860	8.10	26.0	20	5.1	8.4	106	2.0	290	140

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
JAN 28...	85	3.4	44	1	3.0	149	140	26	0.5	0.3	390
MAR 04...	74	3.0	27	0.9	4.2	141	86	21	0.5	2.1	300
APR 15...	85	4.4	90	3	2.5	168	190	48	0.8	3.2	520
JUN 03...	110	4.6	64	2	4.7	157	220	34	0.7	6.5	540

DATE	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)
JAN 28...	5	4	1.84	0.06	1.90	0.02	0.88	0.9	0.19	--	2
MAR 04...	26	5	1.28	0.02	1.30	0.07	0.53	0.6	0.07	5.7	--
APR 15...	13	2	--	0.01	<0.10	0.05	0.75	0.8	0.04	5.6	--
JUN 03...	50	18	0.78	0.02	0.80	0.02	0.88	0.9	0.08	7.5	3

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
JAN 28...	52	<1	<10	<1	5	<1	6	0.1	<1	<1	9
MAR 04...	--	--	--	--	--	--	--	--	--	--	--
APR 15...	--	--	--	--	--	--	--	--	--	--	--
JUN 03...	72	<1	<10	1	11	<5	11	<0.1	<1	3	22

08093260 HACKBERRY CREEK BELOW HILLSBORO, TX
(Low-flow partial-record station)

LOCATION.--Lat 31°59'43", long 97°08'38", Hill County, Hydrologic Unit 12060202, at abandoned steel truss bridge on county road, 0.7 mi downstream from Little Hackberry Creek, 0.8 mi downstream from State Highway 22, and 1.4 mi southwest of county courthouse in Hillsboro.

DRAINAGE AREA.--86.8 mi .

PERIOD OF RECORD.--Periodic discharge measurements: October 1979 to current year. Chemical and biochemical analyses: October 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3
DEC 09...	1230	1.8	1060	7.60	15.0	20	30	6.1	62	9.3	210	0
JAN 27...	1415	3.4	740	7.90	8.0	15	6.5	12.4	--	2.4	220	56
MAR 05...	1330	7.5	720	8.10	18.0	10	28	10.9	118	2.4	230	67
APR 15...	1300	1.7	915	7.50	20.5	10	4.3	8.1	91	2.9	210	24
JUL 30...	0900	0.49	800	7.40	26.0	10	20	3.2	41	4.6	170	1
SEP 16...	0815	0.45	824	7.60	25.0	25	11	4.6	57	5.7	280	90

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
DEC 09...	77	5.5	140	4	9.4	215	210	66	0.6	7.2	640
JAN 27...	81	3.8	63	2	6.6	162	140	51	0.5	2.6	450
MAR 05...	86	4.0	51	2	5.4	164	140	39	0.6	3.0	430
APR 15...	78	4.4	86	3	10	189	140	68	0.5	7.4	510
JUL 30...	63	3.6	81	3	17	171	86	74	0.4	12	440
SEP 16...	100	7.2	50	1	4.5	189	120	43	0.5	12	450

DATE	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)
DEC 09...	66	21	1.63	0.07	1.70	1.30	1.4	2.7	<0.01	--	8
JAN 27...	3	2	1.06	0.04	1.10	0.41	0.89	1.3	1.40	6.9	2
MAR 05...	45	15	1.28	0.02	1.30	0.43	0.77	1.2	0.98	7.8	--
APR 15...	1	<1	0.13	0.17	0.30	9.50	2.5	12	4.80	11	--
JUL 30...	44	17	0.17	0.53	0.70	0.84	0.86	1.7	0.12	11	4
SEP 16...	16	7	0.11	0.39	0.50	2.90	1.4	4.3	4.70	10	--

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC 09...	42	<1	<10	1	<3	1	23	0.1	<1	<1	24
JAN 27...	40	<1	<10	1	8	<1	35	0.1	<1	1	20
MAR 05...	--	--	--	--	--	--	--	--	--	--	--
APR 15...	--	--	--	--	--	--	--	--	--	--	--
JUL 30...	33	<1	<10	1	18	<5	98	0.1	<1	<1	20
SEP 16...	--	--	--	--	--	--	--	--	--	--	--

08093350 AQUILLA LAKE ABOVE AQUILLA, TX

LOCATION.--Lat 31°53'59", long 97°12'09", Hill County, Hydrologic Unit 12060202, 450 ft upstream from Farm Road 310 that runs along top of Aquilla Dam on Aquilla Creek, and 3.4 miles north-northeast of Aquilla.

DRAINAGE AREA.--255 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1983 to September 1985.

GAGE.--Water stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--The lake is formed by an earthfill dam with a crest length of 11,890 ft and a top width of 38.0 ft. A reinforced concrete inlet structure, near center of dam, houses the flood-control gates and operating equipment. Closure of the dam began Mar. 20, 1982, and the dam was completed in January 1983. The dam was built and is owned by the U. S. Army Corps of Engineers. Deliberate impoundment began Apr. 29, 1983. The lake was build for water supply, flood control, and recreation purposes. Figures given herein represent total contents. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-ft)
Top of dam..	582.5	-
Spillway crest (uncontrolled)...............................	564.5	213,700
Top of flood-control pool....................................	556.0	146,000
Top of conservation pool.....................................	537.5	52,400
Invert, lowest gated outlet....................................	503.0	932

COOPERATION.--Area and capacity tables by the U.S. Army Corps of Engineers. Records of elevations and contents provided by the U.S. Army Corps of Engineers and reviewed by the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum observed contents, 12,250 acre-ft, Apr. 10-15, 1984 (elevation, 518.96 ft); minimum observed 4,600 acre-ft, Oct. 6-10, 1983 (elevation, 511.31 ft on Oct. 6, 7 and 9, 10, and 511.30 ft on Oct. 8).

EXTREMES FOR CURRENT YEAR.--Maximum observed contents, 70,060 acre-ft Dec. 12 at 1300 hours (elevation, 542.32 ft); minimum observed, 47,030 acre-ft on Oct. 9 at 1900 hours (elevation, 535.81 ft).

Capacity table (elevation, in feet, and total contents, in acre-feet)

535.0	44,620	539.0	57,450	543.0	72,900
537.0	50,740	541.0	64,800		

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47580	53320	53120	52620	52330	52460	52100	52360	54120	52030	50800	49600
2	47520	53250	53050	52530	52390	52460	52100	52300	53990	52160	50740	49980
3	47460	53220	52990	52530	54220	52660	52100	52260	53820	52160	50680	50010
4	47430	53190	53020	52560	54760	52660	52100	52130	53690	52130	50610	49980
5	47360	53150	52990	52530	55340	52690	52100	52100	57140	52130	50480	50680
6	47240	53150	52920	52460	55960	52660	52070	52100	61850	52100	50420	51870
7	47150	53090	52920	52560	55860	52590	52070	52100	62410	52100	50320	52360
8	47060	52950	52920	52490	55580	52560	52070	52100	62900	52070	50260	52360
9	47060	52950	52890	52460	55510	52560	52070	52430	63540	52070	50170	52330
10	47120	53050	58260	52460	55410	52690	52230	52860	62520	52000	50170	52230
11	47120	53020	69530	52460	55070	52690	52200	52990	68150	51940	50480	52260
12	47090	52950	70060	52460	54760	52720	52230	52950	67670	51900	50420	52260
13	47060	52950	69650	52430	54460	52690	52130	52920	65850	51840	50390	52230
14	47360	52950	69200	52430	54290	52690	52160	52920	64000	51810	50290	52200
15	47330	53090	68470	52390	54020	52660	52160	52860	62000	51710	50230	52030
16	47300	53050	67190	52460	53750	52620	52070	52790	60240	51940	50170	52030
17	47360	53050	65230	52460	53520	52560	51900	54800	58480	51840	50070	52000
18	49000	53020	63350	52490	53290	52620	51900	56100	57030	51770	50040	51970
19	53580	53120	61410	52490	53050	52620	52260	56100	55920	51710	49980	51940
20	54590	53020	59550	52460	52860	52530	52230	56060	55270	51640	49910	51900
21	54760	52950	57630	52560	52620	52490	52200	55440	54590	51640	59850	51870
22	54760	52890	55990	52530	52590	52330	52130	55510	53890	51580	49790	51840
23	54700	52950	54630	52460	52530	52330	52030	55380	53420	51510	49720	51810
24	54660	52920	54320	52390	52560	52260	51970	55270	53090	51420	49660	51770
25	54530	53020	53920	52490	52560	52230	51900	55140	52720	51350	49600	51740
26	54360	53020	53620	52460	52560	52230	51870	54930	52530	51290	49530	51290
27	54160	53290	53380	52390	52590	52230	51970	54760	52390	51220	49500	51290
28	53890	53250	53250	52360	52560	52230	51900	54530	52360	51130	49500	51260
29	53820	53190	53090	52360	---	52200	51870	54360	52360	51060	49410	51130
30	53650	53190	52920	52330	---	52130	52070	54190	52230	50960	49340	51090
31	53450	---	52820	52300	---	52100	---	54060	---	50900	49250	---
MAX	54760	53320	70060	52620	55960	52720	52260	56100	68150	52160	59850	52360
MIN	47060	52890	52820	52300	52330	52100	51870	52100	52230	50900	49250	49600
(†)	537.83	537.75	537.64	537.48	537.56	537.42	537.41	538.01	537.46	537.05	536.53	537.11
(‡)	+5780	-260	-370	-520	+260	-460	-30	+1990	-1830	-1330	-1650	+1840

CAL YR 1985 MAX 70060 MIN 31890 (‡) -26050
WTR YR 1986 MAX 70060 MIN 47060 (‡) +3420

(†) Elevation, in feet, at end of month.
(‡) Change in contents, in acre-feet.

08093350 AQUILLA LAKE ABOVE AQUILLA, TX--Continued

LOCATION.--Lat 31°53'58", long 97°12'26", Hill County, Hydrologic Unit 12060202, at Aquilla Dam on Aquilla Creek at Farm Road 310 and 3.3 mi north-northeast of Aquilla.

PERIOD OF RECORD.--Chemical and biochemical analyses: February to September 1984.

315354097125701 - AQUILLA LAKE SITE AR

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
JAN							
16...	1010	1.00	367	9.00	8.5	11.8	--
16...	1011	10.0	367	9.00	8.0	11.5	--
16...	1012	20.0	367	8.90	8.0	11.4	--
16...	1013	30.0	367	8.90	8.0	11.1	--
16...	1014	36.0	367	8.90	8.0	10.8	--
MAY							
06...	1037	1.00	395	8.00	22.0	6.9	80
06...	1038	10.0	395	7.90	22.0	6.8	79
06...	1039	20.0	395	7.90	21.5	6.4	74
AUG							
12...	1001	1.00	342	8.10	28.5	5.8	--
12...	1003	10.0	342	8.00	28.5	5.2	--
12...	1005	19.0	342	7.90	28.5	4.9	--

315358097122601 - AQUILLA LAKE SITE AC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3
JAN										
16...	0945	1.00	367	9.00	8.5	1.10	11.8	--	140	10
16...	0946	1.80	--	--	--	--	--	--	--	--
16...	0947	10.0	367	8.90	8.5	--	11.6	--	--	--
16...	0948	20.0	367	8.80	8.5	--	11.6	--	--	--
16...	0949	30.0	367	8.70	8.0	--	11.4	--	--	--
16...	0950	40.0	367	8.60	8.0	--	11.1	--	--	--
16...	0951	50.0	367	8.40	8.0	--	10.8	--	140	10
MAY										
06...	0959	1.00	395	7.90	22.0	1.20	6.9	80	150	16
06...	1000	1.00	--	--	--	--	--	--	--	--
06...	1001	10.0	395	7.90	22.0	--	6.9	80	--	--
06...	1002	20.0	395	7.60	21.5	--	6.8	78	--	--
06...	1003	30.0	395	7.60	21.5	--	6.3	73	--	--
06...	1004	40.0	395	7.50	21.5	--	6.0	69	150	23
AUG										
12...	0921	1.00	341	7.90	28.5	1.50	5.3	--	130	15
12...	0922	1.00	--	--	--	--	--	--	--	--
12...	0923	10.0	343	7.70	28.5	--	5.3	--	--	--
12...	0925	20.0	343	7.70	28.0	--	4.8	--	--	--
12...	0927	25.0	345	7.60	28.0	--	3.3	--	--	--
12...	0929	30.0	348	7.50	28.0	--	1.5	--	--	--
12...	0931	41.0	406	7.40	24.0	--	1.5	18	150	0

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
JAN										
16...	49	3.1	20	0.8	5.5	125	43	14	0.4	0
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	49	3.1	20	0.8	5.5	125	41	13	--	0.1
MAY										
06...	53	3.2	22	0.8	5.4	130	55	12	0.3	1.3
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	53	3.2	22	0.8	5.5	123	56	13	--	1.6
AUG										
12...	45	3.1	21	0.9	5.8	110	43	11	0.4	6.3
12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
12...	53	3.3	20	0.8	5.7	129	16	11	--	11

AQUILLA LAKE ABOVE AQUILLA, TX--Continued

315358097122601 - AQUILLA LAKE SITE AC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JAN										
16...	210	0.38	0.02	0.40	0.01	[illegible]	0.7	0.03	4	<1
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	0.57	0.03	0.60	0.01	0.69	0.7	0.03	50	<10
16...	--	--	--	--	--	--	--	--	--	--
16...	210	0.57	0.03	0.60	0.04	0.86	0.9	0.05	7	9
MAY										
06...	230	0.46	0.04	0.50	0.04	0.66	0.7	0.03	4	<1
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	--	0.56	0.04	0.60	0.08	0.62	0.7	0.03	20	<10
06...	--	--	--	--	--	--	--	--	--	--
06...	230	0.46	0.04	0.50	0.12	0.78	0.9	0.10	16	86
AUG										
12...	200	--	<0.01	<0.10	0.05	0.55	0.6	0.02	17	25
12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	0.01	<0.10	0.09	0.61	0.7	0.03	30	40
12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	<0.01	<0.10	0.28	0.72	1.0	0.04	20	300
12...	230	--	0.02	<0.10	2.60	1.2	3.8	0.24	1700	4400

315402097115401 - AQUILLA LAKE SITE AL

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
JAN							
16...	1028	1.00	367	9.00	8.5	11.9	--
16...	1029	10.0	367	9.00	8.5	11.7	--
16...	1030	24.0	367	9.00	8.0	11.5	--
MAY							
06...	1027	1.00	395	7.90	22.0	6.8	79
06...	1028	10.0	395	7.90	22.0	6.8	79
06...	1029	20.0	395	7.80	21.5	6.4	74
06...	1030	28.0	395	7.80	21.5	6.2	71
AUG							
12...	0951	1.00	341	7.90	28.5	5.4	--
12...	0953	10.0	341	7.80	28.5	4.8	--
12...	0955	20.0	344	7.50	28.5	2.4	--
12...	0957	25.0	345	7.60	28.0	2.4	--
12...	0959	30.0	347	7.60	28.0	1.3	--

315601097111501 - AQUILLA LAKE SITE BC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
JAN									
16...	1130	1.00	365	9.20	9.0	0.8	12.7	--	0.67
16...	1131	10.0	365	9.10	9.0	--	12.6	--	--
16...	1132	20.0	365	9.10	9.0	--	12.4	--	0.57
16...	1133	25.0	367	8.70	8.0	--	8.8	--	1.65
16...	1134	30.0	391	8.40	7.5	--	7.9	--	--
16...	1135	38.0	405	8.40	7.5	--	7.7	--	2.14
MAY									
06...	1145	1.00	394	8.10	22.0	0.9	7.1	83	0.46
06...	1146	10.0	394	8.00	22.0	--	7.0	82	--
06...	1147	20.0	394	7.90	22.0	--	7.0	82	0.46
06...	1148	30.0	414	7.60	22.0	--	4.0	47	--
06...	1149	36.0	414	7.60	22.0	--	3.9	45	0.17
AUG									
12...	1106	1.00	347	8.10	29.0	1.00	5.4	--	--
12...	1108	10.0	347	7.90	28.5	--	4.9	--	--
12...	1110	20.0	347	7.60	28.5	--	3.2	--	--
12...	1112	25.0	350	7.50	28.5	--	1.6	--	--
12...	1114	30.0	354	7.50	28.0	--	1.0	--	--
12...	1116	39.0	384	7.60	28.0	--	1.0	--	--

AQUILLA LAKE ABOVE AQUILLA, TX--Continued

315601097111501 - AQUILLA LAKE SITE BC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JAN								
16...	0.03	0.70	0.01	0.79	0.8	0.03	50	<10
16...	--	--	--	--	--	--	--	--
16...	0.03	0.60	0.01	0.69	0.7	0.03	30	<10
16...	0.05	1.70	0.05	0.75	0.8	0.05	40	<10
16...	--	--	--	--	--	--	--	--
16...	0.06	2.20	0.08	0.52	0.6	0.16	50	<10
MAY								
06...	0.04	0.50	0.04	0.66	0.7	0.03	<10	<10
06...	--	--	--	--	--	--	--	--
06...	0.04	0.50	0.04	0.66	0.7	0.03	<10	30
06...	--	--	--	--	--	--	--	--
06...	0.03	0.20	0.25	0.75	1.0	0.05	30	280
AUG								
12...	<0.01	<0.10	0.05	0.65	0.7	0.03	30	30
12...	--	--	--	--	--	--	--	--
12...	<0.01	<0.10	0.25	0.75	1.0	0.05	260	170
12...	<0.01	<0.10	0.23	0.57	0.8	0.04	30	350
12...	--	--	--	--	--	--	--	--
12...	<0.01	<0.10	0.56	0.84	1.4	0.07	500	1400

315649097103701 - AQUILLA LAKE SITE CC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3
JAN										
16...	1150	1.00	306	9.10	10.0	0.6	15.0	133	130	15
16...	1151	1.00	--	--	--	--	--	--	--	--
16...	1152	10.0	355	9.00	9.0	--	14.6	--	--	--
16...	1153	15.0	355	8.70	7.5	--	9.8	--	--	--
16...	1154	20.0	375	8.40	7.5	--	7.9	--	--	--
16...	1155	26.0	438	8.40	7.5	--	7.2	--	170	43
MAY										
06...	1205	1.00	396	8.10	23.0	0.8	6.8	81	150	20
06...	1206	1.00	--	--	--	--	--	--	--	--
06...	1207	10.0	400	7.80	23.5	--	6.0	72	--	--
06...	1208	14.0	400	7.80	23.0	--	5.6	66	150	18
AUG										
12...	1133	1.00	355	7.90	30.0	0.9	4.5	--	120	8
12...	1134	1.00	--	--	--	--	--	--	--	--
12...	1135	12.0	352	7.80	29.5	--	2.4	--	120	0

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
JAN										
16...	47	3.0	20	0.8	5.2	115	42	12	0	200
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	63	2.7	20	0.7	4.4	125	61	13	5.5	240
MAY										
06...	54	3.2	22	0.8	5.4	128	57	14	1.1	230
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	54	3.2	23	0.9	5.4	130	58	13	1.3	240
AUG										
12...	44	3.2	17	0.7	5.7	115	31	12	6.5	190
12...	--	--	--	--	--	--	--	--	--	--
12...	44	3.2	18	0.7	5.6	128	32	12	6.6	200

AQUILLA LAKE ABOVE AQUILLA, TX--Continued

315649097103701 - AQUILLA LAKE SITE CC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JAN									
16...	0.76	0.04	0.80	0.01	0.79	0.8	0.04	3	1
16...	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--
16...	1.55	0.05	1.60	0.04	0.86	0.9	0.05	140	<10
16...	--	--	--	--	--	--	--	--	--
16...	2.14	0.06	2.20	0.10	0.6	0.7	0.07	7	14
MAY									
06...	0.37	0.03	0.40	0.02	0.88	0.9	0.04	<3	1
06...	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--
06...	0.37	0.03	0.40	0.07	0.63	0.7	0.03	4	3
AUG									
12...	--	<0.01	<0.10	0.03	0.77	0.8	0.04	30	<10
12...	--	--	--	--	--	--	--	--	--
12...	--	<0.01	<0.10	0.12	0.58	0.7	0.03	<20	20

315518097123401 - AQUILLA LAKE SITE DC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
JAN									
16...	1040	1.00	364	9.00	9.0	1.00	12.5	--	0.48
16...	1041	10.0	366	8.90	9.0	--	11.7	--	--
16...	1042	20.0	368	8.80	8.5	--	11.1	--	--
16...	1043	25.0	368	8.60	8.0	--	9.1	--	0.48
16...	1044	30.0	370	8.50	8.0	--	8.8	--	--
16...	1045	38.0	370	8.60	8.0	--	8.7	--	0.48
MAY									
06...	1053	1.00	393	8.00	22.0	1.00	7.1	83	0.45
06...	1054	10.0	393	8.00	22.0	--	7.1	83	--
06...	1055	20.0	393	7.90	22.0	--	7.1	83	0.45
06...	1056	30.0	393	7.70	22.0	--	5.7	66	--
06...	1057	36.0	396	7.60	22.0	--	4.1	48	0.46
AUG									
12...	1013	1.00	343	7.90	29.0	1.60	5.0	--	--
12...	1015	10.0	343	7.80	28.5	--	4.8	--	--
12...	1017	20.0	343	7.60	28.5	--	4.1	--	--
12...	1019	25.0	347	7.40	28.5	--	1.8	--	--
12...	1021	30.0	366	7.20	28.0	--	1.2	--	--
12...	1023	36.0	403	7.20	27.5	--	1.2	--	--

DATE	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JAN								
16...	0.02	0.50	0.01	0.59	0.6	0.03	40	<10
16...	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--
16...	0.02	0.50	0.05	0.55	0.6	0.03	30	20
16...	--	--	--	--	--	--	--	--
16...	0.02	0.50	0.07	0.53	0.6	0.03	40	20
MAY								
06...	0.05	0.50	0.05	0.65	0.7	0.03	10	20
06...	--	--	--	--	--	--	--	--
06...	0.05	0.50	0.05	0.65	0.7	0.03	30	20
06...	--	--	--	--	--	--	--	--
06...	0.04	0.50	0.08	0.62	0.7	0.03	80	560
AUG								
12...	<0.01	<0.10	0.04	0.66	0.7	0.03	20	20
12...	--	--	--	--	--	--	--	--
12...	<0.01	<0.10	0.10	0.7	0.8	0.04	30	70
12...	<0.01	<0.10	0.23	0.67	0.9	0.05	330	450
12...	--	--	--	--	--	--	--	--
12...	<0.01	<0.10	2.00	0.7	2.7	0.44	28000	1700

AQUILLA LAKE ABOVE AQUILLA, TX--Continued

315748097144901 - AQUILLA LAKE SITE EC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3
JAN										
16...	1105	1.00	360	9.20	10.0	1.00	13.4	119	140	13
16...	1106	1.70	--	--	--	--	--	--	--	--
16...	1107	10.0	360	9.00	9.0	--	12.1	--	--	--
16...	1108	15.0	360	8.80	9.0	--	11.1	--	140	12
MAY										
06...	1103	1.00	393	8.00	22.5	1.00	7.0	82	150	16
06...	1104	1.00	--	--	--	--	--	--	--	--
06...	1105	10.0	393	8.00	22.5	--	6.9	81	--	--
06...	1106	18.0	393	7.90	22.5	--	6.3	74	150	16
AUG										
12...	1041	1.00	344	7.90	29.0	1.50	1.8	--	120	8
12...	1042	1.00	--	--	--	--	--	--	--	--
12...	1043	10.0	344	7.70	29.0	--	3.6	--	--	--
12...	1045	18.0	346	7.70	29.0	--	2.8	--	130	2

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
JAN										
16...	50	3.2	22	0.9	5.6	125	41	11	0.2	210
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	50	3.3	21	0.8	5.9	126	41	12	0.6	210
MAY										
06...	53	3.2	22	0.8	5.4	130	55	12	1.0	230
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
06...	53	3.3	22	0.8	5.4	130	55	12	1.2	230
AUG										
12...	44	3.2	21	0.9	6.0	115	41	12	6.1	200
12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
12...	45	3.1	21	0.9	5.9	123	42	11	6.4	210

DATE	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
JAN									
16...	0.47	0.03	0.50	0.02	0.78	0.8	0.03	6	<1
16...	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--
16...	0.38	0.02	0.40	0.02	0.58	0.6	0.02	18	8
MAY									
06...	0.45	0.05	0.50	0.05	0.65	0.7	0.03	<3	3
06...	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--
06...	0.45	0.05	0.50	0.09	0.71	0.8	0.04	7	25
AUG									
12...	--	<0.01	<0.10	0.03	0.57	0.6	0.04	14	3
12...	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--
12...	--	<0.01	<0.10	0.13	0.57	0.7	0.03	17	24

Aquilla Lake AC (315358097122601)

Phytoplankton Analyses October 1985 to September 1986

Date	1-16-86
Time	0946
TOTAL CELLS/ml	38,869
NUMBER OF SPECIES	32
DEPTH COLLECTED (ft.)	1.8

Organisms	Cells/ml
CHLOROPHYTA (Green algae)	
Ankistrodesmus falcatus var. *falcatus*	114
Ankistrodesmus falcatus var. *mirabilus*	170
Ankistrodesmus nannoselene	341
Chlamydomonas sp.	114
Chlorococcum sp.	625
Chodatella subsalsa	114
Crucigenia tetrapedia	738
Gloeocystis sp.	57
Mesotaenium sp.	568
Oocystis sp.	682
Scenedesmus quadricauda	114
Sphaerocystis schroeteri	57
CYANOPHYTA (Blue-green algae)	
Aphanocapsa delicatissima	20107
Chroococcus limneticus	909
Chroococcus minutus	341
Dactylococcopsis fascicularis	454
Dactylococcopsis raphidioides	57
Oscillatoria limnetica	1136
Synechococcus lineare	454
Synechococcus sp.	2499
CRYPTOPHYTA (Cryptomonads)	
Cryptomonas sp. 1	114
BACILLARIOPHYTA (Diatoms)	
Order Centrales	
Cyclotella meneghiniana	34
Cyclotella stelligera	85
Melosira granulata	136
Melosira granulata var. *angustissima*	271
Melosira lirata	5623
Stephanodiscus astrea	2662
Stephanodiscus dubius	51
Order Pennales	
Diploneis sp.	114
Navicula tenelloides	7
Navicula viridula	7
Synedra rumpens	114

AQUILLA LAKE ABOVE AQUILLA, TX--Continued

Aquilla Lake AC (315358097122601)

Phytoplankton Analyses October 1985 to September 1986

Date	5-6-86
Time	1000
TOTAL CELLS/mL	23,515
NUMBER OF SPECIES	29
DEPTH COLLECTED (ft.)	1.0

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Ankistrodesmus convolutus	57
Chlorella sp.	1079
Chlorococcum sp.	625
Coelastrum microporum	2954
Crucigenia irregularis	227
Crucigenia tetrapedia	227
Kirchneriella lunaris	454
Mesotaenium sp.	57
Oocystis sp.	909
Pediastrum simplex	1590
Phacotus lenticularis	57
Quadrigula closteroides	852
Scenedesmus armatus	227
Scenedesmus quadricauda	227
CYANOPHYTA (blue-green algae)	
Aphanocapsa delicatissima	3748
Aphanocapsa elachista	2897
Chroococcus minutus	227
Chroococcus multicoloratus	393
Dactylococcopsis fascicularis	57
Dactylococcopsis raphidioides	114
Microcystis marina	1136
Microcystis sp.	2499
Synechococcus elongatus	1250
CRYPTOPHYTA (cryptomonads)	
Cryptomonas sp.	114
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Cyclotella ocellata	227
Cyclotella sp.	170
Melosira lirata	909
Stephanodiscus astrea	170
Order Pennales	
Nitzschia acicularis	57

AQUILLA LAKE ABOVE AQUILLA, TX- Continued

Aquilla Lake AC (315358097122601)

Phytoplankton Analyses October 1985 to September 1986

Date	8-12-86
Time	0922
TOTAL CELLS/mL	207,521
NUMBER OF SPECIES	44
DEPTH COLLECTED (ft.)	1.0

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Ankistrodesmus falcatus	114
Carteria sp.	114
Chlorococcum sp.	341
Closterium sp.	114
Mesotaenium sp.	114
Oocystis sp.	682
Pediastrum simplex	114
Scenedesmus dimorphus	227
Scenedesmus quadricauda	341
Scenedesmus sp.	227
Sphaerocystis schroeteri	1363
CYANOPHYTA (blue-green algae)	
Anabaena sp.	227
Anabaenopsis raciborskii ?	13632
Aphanocapsa delicatissima	40669
Aphanocapsa elachista	10451
Aphanothece sp.	21811
Chroococcus varius	1136
Coelosphaerium kuetzingianum	4090
Dactylococcopsis acicularis	114
Dactylococcopsis fascicularis	10792
Lyngbya limnetica	13405
Lyngbya nana	23174
Merismopedia tenuissima	2272
Oscillatoria angustissima	21130
Oscillatoria limnetica	16245
Oscillatoria planctonica	3067
Oscillatoria subtilissima	6134
Oscillatoria sp.	1590
Pseudoanabaena sp.	2272
Spirulina laxissima	454
Synechococcus aeruginosa	227
Synechococcus lineare	1704
Synechococcus sp.	6930
EUGLENOPHYTA (euglenoid algae)	
Euglena sp.	114
Trachelomonas volvocina	114
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Coscinodiscus sp.	114
Cyclotella meneghiniana	568
Cyclotella sp.	114
Melosira sp.	454
Rhizosolenia eriensis	227
Order Pennales	
Nitzschia acicularis	227
Nitzschia palea	57
Nitzschia subacicularis	28
Synedra sp.	227

AQUILLA LAKE ABOVE AQUILLA, TX--Continued

Aquilla Lake CC (315649097103701)

Phytoplankton Analyses October 1985 to September 1986

Date	1-16-86
Time	1151
TOTAL CELLS/ml	28,743
NUMBER OF SPECIES	35
DEPTH COLLECTED (ft.)	1.0

Organisms	Cells/ml
CHLOROPHYTA (Green algae)	
Ankistrodesmus braunii	57
Ankistrodesmus convolutus	170
Ankistrodesmus narnoselene	57
Carteria sp.	57
Chlamydomonas sp.	171
Chlorococcum sp.	341
Chodatella subsalsa	227
Coelastrum sp.	454
Crucigenia tetrapedia	511
Mesotaenium sp.	454
Pediastrum simplex	57
Scenedesmus armatus	227
Scenedesmus quadricauda	227
Tetrastrum staurogeniaeforme	227
CYANOPHYTA (Blue-green algae)	
Aphanocapsa delicatissima	12269
Aphanothece saxicola	682
Dactylococcopsis fascicularis	795
Synechococcus sp.	2272
EUGLENOPHYTA (Euglenoids)	
Euglena sp.	57
PYRROPHYTA (Dinoflagellates)	
Ceratium hirundinella var. brachyceras	170
CRYPTOPHYTA (Cryptomonads)	
Chroomonas sp.	568
Cryptomonas sp. 1	1306
Cryptomonas sp. 2	227
Cryptomonas sp. 3	114
BACILLARIOPHYTA (Diatoms)	
Order Centrales	
Cyclotella stelligera	90
Melosira lirata	3294
Stephanodiscus astrea	3161
Stephanodiscus dubius	271
Order Pennales	
Achnanthes minutissima	43
Achnanthes sp.	14
Amphipleura pelucida	57
Nitzschia dissipata	29
Nitzschia obtusa	29
Synedra rumpens	29
Synedra sp.	29

AQUILLA LAKE ABOVE AQUILLA, TX--Continued

Aquilla Lake CC (315649097103701)

Phytoplankton Analyses October 1985 to September 1986

Date	5-6-86
Time	1206
TOTAL CELLS/mL	42,093
NUMBER OF SPECIES	40
DEPTH COLLECTED (ft.)	1.0

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Ankistrodesmus nannoselene	114
Carteria sp.	57
Chlamydomonas sp.	57
Chorella sp.	170
Chlorococcum sp.	852
Coelastrum microporum	795
Crucigenia irregularis	1079
Crucigenia tetrapedia	227
Dysmorphococcus sp.	625
Elakatothrix viridis	57
Kirchneriella lunaris	1193
Mesotaenium sp.	114
Oocystis sp.	284
Pediastrum simplex	1136
Phacotus lenticularis	170
Scenedesmus bijuga	57
Scenedesmus quadricauda	625
Scenedesmus serratus	114
Sphaerellopsis sp.	57
Tetraedron trigonum	57
Tetraedron minimum	57
CHRYSOPHYTA (Golden-brown algae)	
Mallomonas sp.	114
CYANOPHYTA (blue-green algae)	
Aphanocapsa delicatissima	16358
Aphanothece sp.	909
Coelosphaerium sp.	909
Dactylococcopsis fascicularis	114
Microcystis marina	2726
Synechococcus elongatus	10224
Synechocystis sp.	227
EUGLENOPHYTA (Euglenoids)	
Phacus longicauda	57
Trachelomonas horrida	57
Trachelomonas schauinslandii	57
PYRRHOPHYTA (Dinoflagellates)	
Ceratium hirundella var. brachyceras	114
CRYPTOPHYTA (cryptomonads)	
Chroomonas sp.	909
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Cyclotella ocellata	114
Melosira lirata	966
Stephanodiscus astrea	57
Order Pennales	
Nitzschia acicularis	57
Nitzschia palea	170
Synedra rumpens	57

Aquilla Lake CC (315649097103701)

Phytoplankton Analyses October 1985 to September 1986

Date	8-12-86
Time	1134
TOTAL CELLS/mL	166,657
NUMBER OF SPECIES	44
DEPTH COLLECTED (ft.)	1.0

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Chlorococcum sp.	795
Coelastrum sp.	682
Crucigenia apiculata	1136
Dictyosphaerium pulchellum	227
Gloeocystis sp.	114
Oocystis sp.	909
Platymonas sp.	114
Scenedesmus armatus	909
Scenedesmus sp.	909
Staurastrum spiculiferum	114
Tetraedron minimum	114
CHRYSOPHYTA (golden-brown algae)	
Mallomonas sp.	114
CYANOPHYTA (blue-green algae)	
Anabaenopsis raciborskii ?	12042
Aphanocapsa delicatissima	23629
Aphanocapsa elachista	28400
Aphanothece sp.	2272
Chroococcus limneticus	2272
Chroococcus varius	2954
Chroococcus sp.	2045
Coelosphaerium kuetzingianum	3408
Dactylococcopsis acicularis	909
Dactylococcopsis fascicularis	7043
Lyngbya limnetica	13405
Merismopedia tenuissima	2499
Microcystis sp.	15677
Oscillatoria angustissima	11474
Oscillatoria limnetica	15109
Oscillatoria planctonia	1931
Oscillatoria subtilissima	9088
Synechococcus aeruginosa	568
Synechococcus lineare	1590
Synechococcus sp.	1590
EUGLENOPHYTA (euglenoid algae)	
Euglena sp.	114
Trachelomonas hispida	114
Trachelomonas volvocina	227
CRYPTOPHYTA (cryptomonads)	
Cryptomonas sp.	114
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Cyclotella meneghiniana	682
Cyclotella sp.	227
Melosira lirata	454
Order Pennales	
Nitzschia acicularis	114
Nitzschia palea	227
Synedra rumpens	114
Synedra sp. 1	114
Synedra sp. 2	114

AQUILLA LAKE ABOVE AQUILLA, TX--Continued

Aquilla Lake EC (315748097144901)

Phytoplankton Analyses October 1985 to September 1986

Date	1-16-86
Time	1106
TOTAL CELLS/ml	120,620
NUMBER OF SPECIES	47
DEPTH COLLECTED (ft.)	1.7

Organisms	Cells/ml
CHLOROPHYTA (Green algae)	
Ankistrodesmus braunii	14
Ankistrodesmus falcatus var. *acicularis*	57
Ankistrodesmus falcatus var. *falcatus*	57
Ankistrodesmus nannoselene	114
Chlamydomonas sp. 1	852
Chlamydomonas sp. 2	341
Chlorococcum sp.	568
Chodatella longiseta	57
Chodatella subsalsa	57
Crucigenia irregularis	454
Crucigenia tetrapedia	454
Elakotothrix viridis	227
Gloeocystis sp.	625
Kirchneriella contorata	227
Mesotaenium sp.	625
Micratinium sp.	341
Oocystis sp.	114
Pediastrum simplex	454
Scenedesmus quadricauda	114
Scenedesmus sp.	114
CYANOPHYTA (Blue-green algae)	
Aphanocapsa delicatissima	17040
Aphanothece saxicola	6475
Chroococcus limneticus	6362
Dactylococcopsis fascicularis	1250
Microcystis marina ?	66683
Synechococcus aeruginosa	227
Synechococcus sp.	4090
Synechocystis sp.	227
CRYPTOPHYTA (Cryptomonads)	
Chroomonas sp.	682
Cryptomonas erosa	57
Cryptomonas ovata	170
Cryptomonas sp. 1	738
Cryptomonas sp. 2	114
BACILLARIOPHYTA (Diatoms)	
Order Centrales	
Cyclotella meneghiniana	104
Cyclotella ocellata	21
Cyclotella stelligera	207
Melosira ambigua	456
Melosira granulata	331
Melosira granulata var. *angustissima*	518
Melosira italica	828
Melosira lirata	6336
Stephanodiscus astrea	1387
Stephanodiscus dubius	166
Order Pennales	
Nitzschia acicularis	57
Nitzschia amphibia	29
Nitzschia palea	29
Synedra rumpens	170

AQUILLA LAKE ABOVE AQUILLA, TX--Continued

Aquilla Lake EC (315748097144901)

Phytoplankton Analyses October 1985 to September 1986

Date Time	5-6-86 1104
TOTAL CELLS/mL	85,996
NUMBER OF SPECIES	30
DEPTH COLLECTED (ft.)	1.0

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Ankistrodesmus nannoselene	114
Chlorococcum sp.	1477
Coelastrum microporum	1363
Crucigenia irregularis	2272
Crucigenia tetrapedia	454
Kirchneriella contorta	114
Mesotaenium sp.	114
Phacotus lenticularis	568
Quadrigula closteroides	682
Scenedesmus abundans	227
Scenedesmus armatus var. bicaudatus	454
Scenedesmus quadricauda	454
Staurastrum sp.	114
Tetraedron trigonum	114
CYANOPHYTA (blue-green algae)	
Aphanocapsa delicatissima	45440
Aphanocapsa elachista	682
Chroococcus minutus	1590
Chroococcus multicoloratus	795
Dactylococcopsis fascicularis	454
Oscillatoria sp.	1136
Synechococcus elongatus	24992
EUGLENOPHYTA (Euglenoids)	
Trachelomonas hispida	227
PYRRHOPHYTA (Dinoflagellates)	
Ceratium hirundella var. brachyceras	114
CRYPTOPHYTA (cryptomonads)	
Chroomonas sp.	454
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Cyclotella ocellata	227
Cyclotella sp.	568
Melosira lirata	454
Stephanodiscus astrea	114
Order Pennales	
Nitzschia palea	114
Synedra rumpens	114

Aquilla Lake EC (315748097144901)

Phytoplankton Analyses October 1985 to September 1986

Date	8-12-86
Time	1042
TOTAL CELLS/mL	385,672
NUMBER OF SPECIES	37
DEPTH COLLECTED (ft.)	1.0

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Ankistrodesmus falcatus	284
Ankistrodesmus nannoselene	284
Coelastrum sphaericum	2272
Elakatothrix sp.	568
Scenedesmus denticularis var. *recurvatus*	1136
Scenedesmus quadricauda	568
Scenedesmus sp.	1136
Sphaerocystis schroeteri	2840
CYANOPHYTA (blue-green algae)	
Anabaenopsis raciborskii ?	44304
Anabaenopsis sp.	3976
Aphanocapsa delicatissima	60208
Aphanocapsa elachista	59072
Aphanocapsa elachista var. *conferta*	11360
Aphanothece sp.	7952
Chroococcus varius	11360
Coelosphaerium kuetzingianum	12496
Dactylococcopsis acicularis	284
Dactylococcopsis fascicularis	3976
Lyngbya limnetica	26696
Lyngbya nana	13632
Merismopedia glauca	6816
Merismopedia tenuissima	2272
Microcystis marina	9088
Microcystis sp.	21584
Oscillatoria angustissima	2272
Oscillatoria limnetica	29536
Oscillatoria planctonica	7384
Oscillatoria subtilissima	5112
Spirulina laxissima	4544
Synechococcus aeruginosa	2840
Synechococcus sp.	23856
EUGLENOPHYTA (euglenoid algae)	
Trachelomonas volvocina	284
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Cyclotella meneghiniana	2840
Cyclotella sp.	227
Order Pennales	
Nitzschia acicularis	1818
Nitzschia palea	568
Synedra sp.	227

08093360 AQUILLA CREEK ABOVE AQUILLA, TX

LOCATION.--Lat 31°53'43", long 97°12'10", Hill County, Hydrologic Unit 12060202, on right bank of excavated outlet channel, 0.2 mi downstream from Aquilla Dam on Aquilla Creek and Farm Road 310 (on top of Aquilla Dam), and 3.3 mi north-northeast of Aquilla.

DRAINAGE AREA.--255 mi^2.

PERIOD OF RECORD.--April 1982 to current year (operated as low-water record only). Prior to Mar. 16, 1982, operated as a full range discharge station.

GAGE.--Water-stage recorder and concrete weir with sharp-crested, 90 degree v-notch weir section for low-flows. Datum of gage is 478.71 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Mar. 15, 1982, at site about 0.2 mi to left of current location at same datum.

REMARKS.--No estimated daily discharges. Records fair except those greater than 25 ft^3/s, which are good. Daily discharges above 135 ft^3/s are not published. Flow is regulated by Aquilla Lake 0.2 mi upstream (station 08093350). Deliberate impoundment of water began Apr. 29, 1983.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,100 ft^3/s June 16, 1981 (gage height, 26.98 ft); no flow for many days in 1980-86.

EXTREMES FOR CURRENT YEAR.--Maximum discharge not determined; maximum gage height, 11.64 ft June 13; minimum discharge, 0.12 ft^3/s Sept. 12, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.38	54	.34	88	.28	.42	.20	.76	76	.38	.28	.22
2	.20	.44	.33	85	.28	.42	.20	.59	74	.30	.28	.31
3	.18	.38	.32	.57	1.0	.51	.20	.56	74	.31	.27	.34
4	.20	.38	.33	.35	.33	.47	.19	.55	74	.34	.27	.24
5	.19	.37	.34	.31	.39	.46	.18	.60	75	.28	.26	.19
6	.16	.36	.34	.32	---	.46	.18	.59	76	.58	.25	.19
7	.20	.36	.35	.32	---	.45	.18	.57	76	.37	.27	.22
8	---	.36	.34	.30	---	.43	.20	.63	76	.30	.28	.40
9	.30	.36	.33	.31	---	.44	.36	.73	---	.29	.28	.17
10	.34	.36	1.4	.31	---	.44	.72	.78	---	.27	.37	.13
11	.32	.36	.67	.31	---	.47	.61	.64	---	.27	.34	.13
12	.32	.36	---	.32	---	.48	.55	.63	---	.26	.44	.12
13	.31	.35	---	.31	---	.46	.56	.63	---	.25	.37	.12
14	.34	.35	---	.30	---	.46	.50	.67	---	.23	.28	.13
15	.29	.42	---	.26	---	.44	.50	.72	---	.25	.26	.13
16	.18	.49	---	.28	---	.44	.51	.88	---	.27	.27	.26
17	.18	.63	---	.30	---	.44	.51	1.5	---	.27	.27	.23
18	.20	.61	---	.32	---	.90	.50	.82	---	.27	.26	.18
19	.75	.46	---	.31	---	.35	.72	.84	---	.27	.25	.18
20	.26	.46	---	.29	---	.28	.57	29	---	.27	.24	.18
21	.25	.51	---	.28	---	.25	.53	70	---	.28	.23	.18
22	.25	.51	---	.28	.40	.22	.53	70	---	.29	.23	.19
23	.22	.45	---	.28	.38	.21	.52	70	---	.29	.25	.19
24	45	.47	---	.27	.42	.20	.51	70	---	.27	.27	.19
25	78	.44	---	.27	.43	.21	.51	70	---	.27	.26	.19
26	78	.43	---	.27	.42	.22	.51	70	---	.26	.22	.20
27	77	.63	---	.27	.42	.22	.55	70	.42	.30	.28	.20
28	79	.40	83	.27	.42	.21	.54	70	.42	.31	.34	.20
29	80	.37	84	.27	---	.20	.53	70	.42	.30	.21	.22
30	80	.35	83	.27	---	.20	.61	71	.41	.31	.21	.22
31	80	---	84	.28	---	.20	---	72	---	.29	.22	---
TOTAL	---	66.42	---	181.82	---	11.56	13.48	815.69	---	9.20	8.51	6.05
MEAN	---	2.21	---	5.87	---	.37	.45	26.3	---	.30	.27	.20
MAX	---	54	---	88	---	.90	.72	72	---	.58	.44	.40
MIN	---	.35	---	.27	---	.20	.18	.55	---	.23	.21	.12
AC-FT	---	132	---	361	---	23	27	1620	---	18	17	12

CAL YR 1985 TOTAL - MEAN - MAX - MIN - AC-FT -
WTR YR 1986 TOTAL - MEAN - MAX - MIN - AC-FT -

08093500 AQUILLA CREEK NEAR AQUILLA, TX

LOCATION.--Lat 31°50'40", long 97°12'04", Hill County, Hydrologic Unit 12060202, on downstream side of highway embankment near left end of bridge on Farm Road 1304, 1.0 mi southeast of Aquilla, 1.2 mi downstream from Cobb Creek, 4.7 mi below Aquilla Dam, and 18.2 mi upstream from mouth.

DRAINAGE AREA.--308 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1938 to current year. Records of daily discharge for December 1924 to August 1925, published in WSP 608, are unreliable.

REVISED RECORDS.--WSP 1712: 1944(M), 1957-58. WDR TX-76-2: Drainage area. See PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 451.48 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Estimated daily discharges: Oct. 19, Dec. 1 to Jan. 29, and May 17 to June 3. Records good except those for estimated daily discharges, which are fair. Since May 1983, flow from 252 mi^2 above this station has been regulated by Aquilla Lake, located 4.7 mi upstream on Aquilla Creek, which began impounding water Apr. 24, 1983.

AVERAGE DISCHARGE.--43 years (water years 1940-82), prior to regulation, 119 ft^3/s (5.25 in/yr), 86,220 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 53,300 ft^3/s June 16, 1981 (gage height, 31.35 ft), from rating curve extended above 25,900 ft^3/s on basis of slope-area measurement of 74,200 ft^3/s, adjusted to gage site; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 31, 1887, reached a stage of 34 ft, from information by local resident. Flood of Sept. 27, 1936, was the highest since 1887 and reached a stage of 33 ft, from floodmark; discharge 84,500 ft^3/s (by slope-area measurements at site 9 mi downstream) and 74,200 ft^3/s (adjusted to gage site).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,620 ft^3/s June 11 at 1230 hours (gage height, 25.18 ft); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.91	78	10	80	3.0	5.0	1.2	48	177	.45	.02	.10
2	.71	11	9.6	49	3.3	5.0	1.2	24	147	.45	.01	.38
3	.69	8.4	9.2	2.1	759	5.3	1.2	1.6	119	70	.00	.26
4	.69	8.4	11	1.4	238	8.1	1.1	1.1	83	97	.00	.13
5	.70	8.6	9.5	1.3	78	6.2	1.1	.94	1150	.76	.00	1.0
6	.70	7.5	9.6	1.2	138	5.5	1.1	.95	821	.52	.00	32
7	.73	7.7	10	1.6	181	4.9	1.1	.97	286	.44	.00	15
8	46	6.9	9.6	1.3	176	4.5	1.1	.94	148	.48	.00	.52
9	1.0	5.9	11	1.3	186	4.4	.99	2.2	269	.51	.00	.20
10	.78	5.6	290	1.6	191	4.5	1.2	54	573	.46	.00	.11
11	.80	5.4	62	1.7	176	3.9	1.3	9.6	2050	.42	.00	.06
12	.80	4.9	162	1.7	173	4.0	1.1	1.2	526	.36	.00	.06
13	.79	5.6	371	1.7	172	4.0	1.1	.97	950	.32	.01	.06
14	.82	4.8	373	1.8	171	4.0	1.0	.88	933	.32	.01	.06
15	.94	5.3	374	2.0	170	3.0	1.0	.85	919	.29	.00	.08
16	.94	9.0	623	2.1	170	2.8	1.2	.83	907	.25	.00	.08
17	.85	5.3	997	2.5	169	2.4	1.1	472	890	.23	.00	.08
18	9.7	5.2	969	2.4	168	2.8	1.0	1130	889	.21	.00	.08
19	717	4.8	946	1.8	168	2.3	29	266	730	.17	.00	.09
20	52	4.2	926	2.1	167	1.7	32	38	344	.15	.00	.07
21	17	4.1	914	2.4	104	1.7	1.1	120	331	.16	.00	.05
22	15	3.7	907	2.4	7.2	1.5	.87	101	325	.14	.00	.04
23	15	3.7	703	2.1	6.3	1.5	.90	106	280	.16	.00	.04
24	45	3.7	190	2.3	5.9	1.4	.86	92	170	.39	.00	.05
25	88	3.9	187	2.3	5.9	1.4	.88	84	165	.25	.00	.06
26	88	4.1	184	2.3	5.9	1.5	.85	91	90	.14	.00	.06
27	88	50	196	2.1	5.8	1.5	.82	98	.65	.02	.00	.05
28	89	18	91	2.4	5.0	1.6	.85	100	.55	.00	.00	.05
29	89	12	87	2.8	---	1.7	.88	97	.51	.00	.00	.05
30	90	12	83	2.9	---	1.5	.90	91	.48	.00	.00	.03
31	91	---	81	2.9	---	1.2	---	90	---	.01	.00	---
TOTAL	1552.55	317.7	9805.5	187.5	3803.3	100.8	90.00	3125.03	14274.19	175.06	.05	50.90
MEAN	50.1	10.6	316	6.05	136	3.25	3.00	101	476	5.65	.00	1.70
MAX	717	78	997	80	759	8.1	32	1130	2050	97	.02	32
MIN	.69	3.7	9.2	1.2	3.0	1.2	.82	.83	.48	.00	.00	.03
AC-FT	3080	630	19450	372	7540	200	179	6200	28310	347	.1	101

CAL YR 1985 TOTAL 18890.28 MEAN 51.8 MAX 997 MIN .00 AC-FT 37470
WTR YR 1986 TOTAL 33482.58 MEAN 91.7 MAX 2050 MIN .00 AC-FT 66410

08093500 AQUILLA CREEK NEAR AQUILLA, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: Marcn 1960 to June 1966, October 1967 to current year. Chemical and biochemical analyses: January 1968 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1965 to June 1966, October 1967 to September 1982.
WATER TEMPERATURES: October 1965 to June 1966, October 1967 to September 1982.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,080 microsiemens Dec. 31. 1975; minimum daily, 182 microsiemens Oct. 31, 1974.
WATER TEMPERATURES: Maximum daily, 31.0°C July 3, 1980; minimum daily, 0.0°C Jan. 8, 1976, Jan. 10, 1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOI FLD MG/L AS CACO3
OCT 30...	1100	91	445	7.90	17.5	10	32	8.6	92	0.8	160	9
JAN 29...	1200	2.8	825	7.90	9.0	10	3.0	11.4	--	0.4	330	120
MAR 04...	1600	8.6	820	8.40	14.0	7	6.0	13.5	133	1.0	320	130
APR 16...	1145	0.99	960	7.80	18.0	5	4.6	8.8	94	1.4	340	110
JUN 04...	1030	82	400	7.70	24.0	25	4.5	6.4	78	1.6	160	20
SEP 15...	1200	0.08	748	7.80	28.5	17	6.0	6.7	88	2.0	280	94

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT 30...	59	3.7	27	1	6.2	154	53	16	0.4	1.9	260
JAN 29...	120	6.7	44	1	11	203	160	34	0.5	2.8	500
MAR 04...	120	5.0	48	1	2.5	192	180	32	0.6	4.2	510
APR 16...	120	8.7	59	1	3.8	225	190	40	0.5	3.5	560
JUN 04...	58	3.2	23	0.8	5.9	138	53	13	0.4	2.9	240
SEP 15...	99	7.1	49	1	4.4	182	120	42	0.5	12	440

DATE	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)
OCT 30...	--	--	0.48	0.02	0.50	--	--	0.7	0.06	--	2
JAN 29...	2	2	3.98	0.02	4.00	0.02	0.68	0.7	0.02	--	<1
MAR 04...	10	7	5.37	0.03	5.40	0.05	0.65	0.7	0.02	3.5	--
APR 16...	5	1	0.58	0.02	0.60	0.12	0.38	0.5	0.02	3.5	1
JUN 04...	44	11	--	<0.01	0.80	0.04	0.76	0.8	0.06	6.0	2
SEP 15...	7	4	2.80	0.10	2.90	0.07	0.63	0.7	0.06	9.3	--

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 30...	62	<1	<10	<1	6	<1	4	0.2	<1	<1	3
JAN 29...	78	<1	<10	<1	4	1	63	<0.1	2	<1	4
MAR 04...	--	--	--	--	--	--	--	--	--	--	--
APR 16...	110	1	<10	3	8	2	83	--	2	<1	22
JUN 04...	60	<1	<10	<1	11	<5	4	<0.1	<1	<1	7
SEP 15...	--	--	--	--	--	--	--	--	--	--	--

08094800 NORTH BOSQUE RIVER AT HICO, TX

LOCATION.--Lat 31°58'41", long 98°02'04", Hamilton County, Hydrologic Unit 12060204, on left bank at downstream side of bridge on U.S. Highway 281 near south boundary of Hico, 2.6 mi downstream from Gilmore Creek, 5.0 mi upstream from Honey Creek, and 92.4 mi upstream from mouth.

DRAINAGE AREA.--359 mi^2.

PERIOD OF RECORD.--January 1962 to current year.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 982.46 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow is affected at times by discharge from flood-detention pools of 40 floodwater-retarding structures with combined detention capacity of 65,720 acre-ft. These structures control runoff from 202 mi^2 in North Bosque River and Green Creek drainage basins. The city of Stephenville discharges a small amount of sewage effluent into river above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--11 years (water years 1963-73), prior to regulation, 50.5 ft^3/s (36,590 acre ft/yr); 13 years (water years 1974-86), regulated, 30.2 ft^3/s (21,880 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,900 ft^3/s Apr. 30, 1977 (gage height, 22.27 ft), from rating curve extended above 9,000 ft^3/s; no flow at times in 1962-65, 1967-68, 1971, 1974, 1976, and 1978-86.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1880, 27.6 ft May 23, 1952, from floodmarks (discharge, 87,800 ft^3/s, by contracted-opening measurement).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,980 ft^3/s June 5 at 1215 hours (gage height, 18.98 ft); no flow Oct. 1, and 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	1.8	3.1	1.5	4.9	1.1	1.6	1.5	372	15	2.8	9.5
2	.47	2.0	2.9	2.0	6.5	1.0	1.5	1.5	1070	27	2.8	1730
3	2.0	1.6	3.4	1.1	10	1.1	1.3	2.6	486	58	2.8	736
4	1.7	1.3	2.6	1.1	14	1.0	1.6	2.5	348	28	2.9	401
5	1.2	1.2	2.2	1.2	6.8	.98	1.8	2.4	5880	14	2.9	227
6	.89	1.0	1.8	1.2	2.6	1.6	2.2	1.9	3530	9.0	2.9	204
7	.65	.96	1.6	1.1	.96	1.9	2.4	1.7	2620	8.0	2.8	99
8	.43	.91	1.5	1.2	.71	2.5	2.4	30	1900	7.3	2.9	63
9	.32	.77	1.5	1.2	.55	3.1	1.9	1280	1360	6.8	2.7	40
10	.25	.64	1.5	1.1	.65	3.1	2.7	724	923	6.4	4.8	37
11	.22	.57	1.9	1.0	.81	2.9	2.9	314	745	6.0	2.9	22
12	.16	1.1	1.9	.89	.93	2.7	2.3	171	503	5.9	2.4	14
13	.10	1.6	2.3	.86	.98	2.5	3.0	119	377	5.4	2.4	12
14	1.4	2.7	2.2	.78	1.1	3.1	2.4	56	300	5.3	2.4	14
15	1.7	5.0	1.8	.89	1.2	2.9	1.8	16	240	5.2	2.5	17
16	1.8	5.4	1.7	.72	1.3	2.6	1.7	6.0	201	5.1	2.7	9.9
17	2.1	3.6	1.6	.57	1.5	2.2	1.3	325	174	4.7	3.6	8.9
18	265	2.4	1.5	.61	1.5	2.9	1.4	326	165	4.4	3.9	8.3
19	396	2.1	1.5	.66	2.0	1.8	76	115	186	4.3	4.4	8.1
20	137	2.0	1.4	.64	2.0	2.3	6.4	45	206	5.2	4.6	7.9
21	10	4.9	1.3	.60	1.8	2.2	2.2	15	147	4.6	3.3	7.3
22	4.5	3.3	1.3	1.4	1.7	1.9	1.2	6.7	105	5.1	3.4	6.9
23	2.9	1.6	1.3	1.4	1.6	1.6	2.2	4.1	84	4.9	4.4	6.7
24	2.1	1.2	1.3	1.2	1.4	1.4	2.8	2.1	76	4.2	4.2	6.6
25	1.7	2.9	1.3	.99	1.3	1.8	2.0	385	54	4.0	3.3	6.6
26	1.5	3.5	1.3	.77	1.6	2.0	1.5	157	42	3.9	2.9	6.5
27	1.4	5.0	1.3	.58	1.6	2.1	1.3	62	34	3.9	3.5	6.4
28	1.4	5.1	1.3	.58	1.3	2.3	1.5	14	28	4.1	2.9	6.4
29	1.5	4.8	1.2	.50	---	2.4	1.6	6.7	20	4.4	2.6	6.2
30	1.8	3.6	1.4	1.3	---	2.3	1.2	4.7	18	4.3	2.4	8.8
31	1.6	---	2.2	3.3	---	1.7	---	17	---	2.9	2.4	---
TOTAL	843.79	74.55	55.1	32.94	73.29	64.98	136.1	4215.4	22194	277.3	97.4	3737.0
MEAN	27.2	2.48	1.78	1.06	2.62	2.10	4.54	136	740	8.95	3.14	125
MAX	396	5.4	3.4	3.3	14	3.1	76	1280	5880	58	4.8	1730
MIN	.00	.57	1.2	.50	.55	.98	1.2	1.5	18	2.9	2.4	6.2
CFSM	.08	.01	.00	.00	.01	.01	.01	.38	2.06	.02	.01	.35
IN.	.09	.01	.01	.00	.01	.01	.01	.44	2.30	.03	.01	.39
AC-FT	1670	148	109	65	145	129	270	8360	44020	550	193	7410

CAL YR 1985 TOTAL 9201.86 MEAN 25.2 MAX 991 MIN .00 CFSM .07 IN. .95 AC-FT 18250
WTR YR 1986 TOTAL 31801.85 MEAN 87.1 MAX 5880 MIN .00 CFSM .24 IN. 3.30 AC-FT 63080

08095000 NORTH BOSQUE RIVER NEAR CLIFTON, TX

LOCATION.--Lat 31°47'09", long 97°34'04", Bosque County, Hydrologic Unit 12060204, near right bank at downstream side of bridge on Farm Road 219, 0.5 mi northeast of Clifton, 2.5 mi downstream from Meridian Creek, and 42.0 mi upstream from mouth.

DRAINAGE AREA.--968 mi².

PERIOD OF RECORD.--October 1923 to current year. Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.--WSP 788: 1924-26, 1928, 1930. WSP 1058: 1945(M). WSP 1512: 1924(M), 1927, 1928(M), 1929, 1930(M), 1931-33, 1934(M), 1935-37, 1939. WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 605.43 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1955, and from Apr. 23, 1957, to Mar. 26, 1958, nonrecording gage at site 1.1 mi upstream at datum 17.02 ft higher; Oct. 1, 1955, to Apr. 22, 1957, and Mar. 27, 1958, to Sept. 30, 1959, water-stage recorder destroyed by floods of Apr. 27, 1957, and Oct. 4, 1959); and Oct. 1, 1959, to Jan. 1, 1961, nonrecording gage at present site and datum.

REMARKS.--No estimated daily discharges. Records good. The city of Clifton diverts water from the river upstream from this station for municipal use. The cities of Clifton and Meridian discharge sewage effluent into the river upstream and downstream respectively, from the station. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see station 08094800. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--44 years (water years 1924-67) unregulated, 195 ft³/s (141,300 acre-ft/yr); 19 years (water years 1968-86) regulated, 155 ft³/s (112,300 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 92,800 ft³/s Oct. 4, 1959 (gage height, 34.88 ft), from rating curve extended above 34,000 ft³/s on basis of contracted-opening measurement of 92,800 ft³/s; no flow at times. Maximum stage since at least 1854, that of Oct. 4, 1959.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 9, 1922, reached a stage of about 32 ft, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 8,300 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
June 5	2400	*23,200	*23.60	June 7	0830	8,950	13.55
June 6	1400	16,800	19.33	Sept. 3	0200	18,600	20.59

Minimum daily discharge, 2.4 ft³/s May 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	5.7	5.6	4.7	4.1	4.8	3.4	6.0	74	56	7.7	7.2
2	5.7	5.5	5.5	4.8	4.2	5.2	3.6	4.9	1540	52	7.5	2690
3	5.6	5.3	5.0	4.9	7.3	6.9	3.3	3.9	1530	51	7.7	5100
4	5.9	5.0	4.8	5.5	56	6.9	3.3	4.0	1490	194	19	1030
5	4.3	4.8	5.5	5.5	58	8.2	3.0	3.3	7700	146	12	683
6	4.5	4.5	5.7	5.3	97	7.0	2.8	2.4	12100	78	16	591
7	4.3	4.2	5.5	5.0	38	6.3	2.6	2.9	4810	54	12	1180
8	4.4	4.7	5.4	4.7	23	6.5	2.6	4.1	2140	41	9.7	744
9	4.2	4.5	5.5	5.0	16	6.6	3.6	1160	3520	33	8.4	303
10	4.2	4.3	8.6	4.9	13	7.0	5.6	882	1400	27	8.1	213
11	4.9	4.0	13	5.2	11	7.9	3.8	780	1630	23	8.4	164
12	4.9	4.6	6.3	5.2	9.1	7.7	3.8	334	1080	19	11	118
13	4.4	4.8	5.1	5.1	7.8	7.0	4.6	195	780	17	25	88
14	4.7	4.9	4.2	5.1	7.4	6.4	4.4	135	612	17	20	70
15	4.8	5.0	4.0	5.0	6.7	6.5	4.1	101	513	17	13	58
16	6.1	4.9	3.8	5.1	6.3	6.6	4.5	71	425	16	9.5	51
17	6.7	5.1	3.7	4.9	5.9	6.8	4.9	135	363	15	8.2	52
18	9.9	5.0	3.8	4.7	5.7	6.9	5.3	862	349	14	7.9	44
19	55	4.8	3.8	4.7	5.5	6.9	6.3	369	359	12	7.5	37
20	662	5.0	3.9	4.4	5.3	6.5	7.1	168	378	12	6.5	33
21	228	5.2	4.2	4.3	5.1	6.2	24	103	344	11	5.9	34
22	93	5.7	4.4	4.2	5.0	6.0	22	69	260	184	5.9	30
23	49	5.8	4.5	4.0	5.1	5.9	15	50	199	78	6.5	41
24	29	5.9	4.0	4.0	5.2	5.7	11	38	167	60	6.6	25
25	19	5.5	3.8	4.0	5.3	5.7	8.9	38	145	32	6.4	19
26	18	5.0	3.8	4.0	5.6	6.3	7.0	402	126	21	7.2	17
27	11	5.4	3.8	4.0	5.3	6.2	6.1	196	102	16	6.9	16
28	8.8	5.6	3.8	4.4	4.8	5.8	6.2	114	87	12	6.8	15
29	7.7	5.6	3.9	4.3	---	4.9	5.9	77	76	11	7.7	15
30	6.8	5.5	3.9	4.0	---	4.2	5.2	65	65	9.0	7.1	15
31	6.1	---	4.4	4.1	---	3.7	---	63	---	7.9	6.6	---
TOTAL	1289.5	151.8	153.2	145.0	428.7	195.2	193.9	6438.5	44364	1335.9	298.7	13483.2
MEAN	41.6	5.06	4.94	4.68	15.3	6.30	6.46	208	1479	43.1	9.64	449
MAX	662	5.9	13	5.5	97	8.2	24	1160	12100	194	25	5100
MIN	4.2	4.0	3.7	4.0	4.1	3.7	2.6	2.4	65	7.9	5.9	7.2
CFSM	.04	.01	.01	.00	.02	.01	.01	.21	1.53	.04	.01	.46
IN.	.05	.01	.01	.01	.02	.01	.01	.25	1.70	.05	.01	.52
AC-FT	2560	301	304	288	850	387	385	12770	88000	2650	592	26740

CAL YR 1985 TOTAL 20838.47 MEAN 57.1 MAX 1230 MIN .97 CFSM .06 IN. .80 AC-FT 41330
WTR YR 1986 TOTAL 68477.6 MEAN 188 MAX 12100 MIN 2.4 CFSM .19 IN. 2.63 AC-FT 135800

08095200 NORTH BOSQUE RIVER AT VALLEY MILLS, TX

LOCATION.--Lat 31°40'10", long 97°28'09", Bosque County, Hydrologic Unit 12060204, on right bank at downstream side of bridge on Farm Road 56, about 0.8 mi downstream from Thompson Hollow, 0.8 mi north of intersection of State Highway 6 and Farm Road 56 in Valley Mills, and 28.0 mi upstream from mouth.

DRAINAGE AREA.--1,146 mi².

PERIOD OF RECORD.--August 1959 to current year.
Water-quality records.--Chemical and biochemical analyses: October 1980 to September 1982.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 524.55 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 29, 1959, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges, Dec. 10 to Jan. 20, and Sept. 3-4. Records good those except for estimated daily discharges, which are poor. Flow is affected at times by discharge from the flood-detention pools of 42 floodwater-retarding structures with a combined detention capacity of 66,800 acre-ft. These structures control runoff from 207 mi². There are several small diversions above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--8 years (water years 1960-67) unregulated, 263 ft³/s (190,500 acre-ft/yr); 19 years (water years 1968-86) regulated, 190 ft³/s (137,700 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 107,000 ft³/s Oct. 4, 1959 (gage height, 40.22 ft, from floodmarks), from rating curve extended above 28,200 ft³/s on basis of slope-area measurement of 107,000 ft³/s; no flow Oct. 5-12, 1965, many days in 1984, and Oct. 1-5, 1984.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1868, 43 ft in May 1908. Floods in September 1936 and April 1945 reached a stage of about 38 ft, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
June 6	0400	*19,700	*29.67	June 7	1200	8,550	18.70
June 6	1700	15,000	25.67	Sept. 3	2400	17,020	a27.51

a From floodmark.

Minimum daily discharges, 3.6 ft³/s Nov. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	6.4	12	18	17	14	12	21	69	62	12	4.7
2	12	5.8	12	19	17	14	12	20	1150	57	11	4.7
3	11	5.0	11	20	26	15	12	17	1440	58	11	2230
4	9.1	4.6	11	22	75	17	12	14	1470	108	16	3080
5	8.2	4.5	9.9	25	136	17	12	14	4410	137	17	741
6	8.0	4.2	11	18	223	19	12	14	13900	76	15	445
7	7.4	3.6	17	17	122	16	12	13	5090	58	16	1230
8	7.2	4.2	12	16	73	16	11	12	2320	49	12	821
9	7.8	5.5	12	15	60	16	11	856	3960	43	11	325
10	9.0	7.8	45	17	50	16	32	837	1630	39	9.4	226
11	18	7.1	90	20	43	16	28	873	1990	35	10	177
12	11	9.7	50	22	38	17	18	399	1300	33	10	137
13	9.2	15	27	24	34	16	16	243	875	30	11	109
14	9.2	17	18	23	31	16	15	168	656	28	22	91
15	11	17	15	22	29	16	14	130	531	28	16	79
16	11	14	14	20	28	15	13	98	420	27	12	68
17	11	14	13	19	26	14	14	100	347	25	9.8	67
18	29	15	12	17	25	16	15	734	329	25	9.2	62
19	229	16	13	16	23	14	19	433	367	24	8.4	53
20	508	15	14	15	22	14	25	217	337	21	7.5	47
21	328	14	15	14	20	13	21	139	316	20	6.6	45
22	119	15	18	12	20	14	57	98	230	120	6.3	43
23	62	20	20	11	19	15	44	76	174	62	6.7	50
24	44	26	16	14	18	15	36	63	146	58	7.1	41
25	34	24	14	16	18	16	31	56	129	39	6.6	31
26	27	21	13	15	17	14	28	295	117	29	5.8	28
27	26	24	12	15	16	17	25	233	99	24	5.4	25
28	15	19	12	16	15	16	23	146	86	20	5.5	23
29	12	15	13	17	---	16	20	98	75	17	5.1	24
30	9.5	14	15	16	---	14	19	78	67	16	4.7	23
31	7.8	---	17	17	---	14	---	71	---	14	4.7	---
TOTAL	1621.4	383.4	583.9	548	1241	478	619	6566	44030	1382	310.8	10330.4
MEAN	52.3	12.8	18.8	17.7	44.3	15.4	20.6	212	1468	44.6	10.0	344
MAX	508	26	90	25	223	19	57	873	13900	137	22	3080
MIN	7.2	3.6	9.9	11	15	13	11	12	67	14	4.7	4.7
AC-FT	3220	760	1160	1090	2460	948	1230	13020	87330	2740	616	20490

CAL YR 1985 TOTAL 31615.14 MEAN 86.6 MAX 1540 MIN .80 AC-FT 62710
WTR YR 1986 TOTAL 68093.9 MEAN 187 MAX 13900 MIN 3.6 AC-FT 135100

08095550 WACO LAKE NEAR WACO, TX

LOCATION.--Lat 31°34'46", long 97°11'51", McLennan County, Hydrologic Unit 12060203, in intake structure at Waco Dam on Bosque River, at northwest edge of city limits of Waco, and 4.6 mi upstream from mouth.

DRAINAGE AREA.--1,652 mi².

PERIOD OF RECORD.--Feburary 1965 to current year. Prior to October 1970, published as Waco Reservoir.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--The lake is formed by a rolled earthfill dam 24,618 ft long, including spillway. The lake was built for flood control and water conservation. From Oct. 1, 1964, to Feb. 26, 1965, the lake was operated as a detention basin only. On Feb. 26, 1965, old Lake Waco was breached and deliberate impoundment began. The spillway is controlled by fourteen 40.0- by 35.0-foot tainter gates. The outlet works consists of three gate-controlled outlets, 6.7 by 20.0 ft, opening into a 20.0-foot-diameter concrete conduit and two 54-inch concrete pipes. Low-flow releases are made through two 54-inch butterfly values. Flow into two wet wells is controlled by four 5.0- by 6.0-foot slide gates that are used to release water downstream for the city of Waco municipal water supply. Capacity table No. 2-C is based on a sedimentation survey completed in December 1970. Flow is affected at times by discharge from the flood-detention pools of 44 floodwater-retarding structures with a combined detention capacity of 76,460 acre-ft. These structures control runoff from 248 mi² in the Bosque River and Hog Creek drainage basins. An unknown amount of water was diverted for municipal and industrial uses. Figures given herein represent total contents. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	510.0	-
Design flood	505.0	824,400
Top of gates	500.0	722,500
Crest of spillway	465.0	229,900
Top of conservation pool	455.0	149,200
Lowest gated outlet (invert)	400.0	560

COOPERATION.--Records were furnished by the U.S. Army Corps of Engineers and reviewed by the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 292,100 acre-ft May 15, 1968 (elevation, 470.86 ft); minimum since initial filling, 86,360 acre-ft Oct. 8, 1984 (elevation, 445.10 ft).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 207,600 acre-ft on June 11 at 0800 hours (elevation, 462.47 ft); minimum daily, 134,700 acre-ft on Oct. 17 at 2400 hours (elevation, 452.96 ft).

Capacity table (elevation, in feet, and total contents, in acre-feet)

452.0	128,100	458.0	171,500	463.0	212,100
455.0	149,200	462.0	203,600		

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	136700	153200	155100	162100	150000	151100	149000	153600	159800	153200	147700	141900
2	136600	152500	154100	161200	150000	151100	149000	154400	163200	153200	147400	142400
3	136500	151800	152800	160200	169900	151600	149300	154700	164700	153900	147200	154500
4	136300	151100	151800	159300	173700	151800	149400	154700	166400	154000	147100	153200
5	136100	150300	151100	158300	175600	151900	149400	154400	168400	154100	146800	153000
6	136000	150000	150600	157100	175600	152100	149400	152100	197400	154200	146500	152800
7	135800	150000	150500	156000	173000	152200	149200	151500	205400	154200	146200	153400
8	135600	150000	150400	154900	170200	152200	149100	151300	203900	154100	146000	153300
9	135400	150000	150300	153800	167400	152300	149600	152500	205000	154100	145700	151900
10	135200	150000	152300	152900	165000	152000	152600	155900	199600	153800	145600	151400
11	135100	151000	167700	151800	161500	151600	153900	157200	207100	153500	145600	151600
12	135100	151100	169900	150800	158000	151000	154200	156900	204100	153300	145400	151700
13	135100	151300	170200	150500	155200	150300	154400	156000	198000	153000	145100	151700
14	135000	151600	170300	150600	153200	150000	153200	154900	190900	152800	144800	151700
15	134900	151700	170000	150900	152400	150000	151200	153700	183900	152500	144600	151600
16	134800	151700	169500	151100	151800	150000	150100	153000	175400	152200	144400	151400
17	134700	151900	169000	151300	151500	150100	149300	155800	168100	151900	144200	151300
18	134900	152200	168500	151500	151100	150100	149400	157000	162900	151700	143900	151100
19	148000	152300	167800	151700	150700	150000	149300	157700	160000	151400	143700	151000
20	152800	152300	167200	151900	150100	150000	149200	157200	158700	151100	143400	150900
21	154100	152200	166500	152000	150000	149800	149100	156000	158000	150900	143200	150800
22	154900	152000	165700	151900	150200	149700	149000	154700	157100	150600	143000	150700
23	155400	152700	165000	151600	150300	149600	149000	153800	156000	150400	143000	150500
24	155800	153500	164000	151400	150400	149600	149000	153300	155500	150100	142800	150300
25	156000	153700	163100	151100	150600	149500	148800	152800	155500	149900	142600	150100
26	156200	154700	162900	150700	150900	149400	148700	152600	155300	149600	142400	149900
27	156300	155900	163200	150400	151100	149400	148800	152500	155000	149300	142200	149700
28	156100	155800	163500	150100	151100	149400	148800	152200	154700	149000	142200	149600
29	155500	155500	163800	149800	---	149300	148700	151900	154300	148600	142100	149300
30	154700	155300	163800	149800	---	149300	149800	156000	153800	148200	141700	149100
31	153900	---	163000	149800	---	149200	---	156600	---	148000	141500	---
MAX	156300	155900	170300	162100	175600	152300	154400	157700	207100	154200	147700	154500
MIN	134700	150000	150300	149800	150000	149200	148700	151300	153800	148000	141500	141900
(†)	455.65	455.84	456.88	455.09	455.27	455.00	455.08	456.02	455.64	454.83	453.92	454.99
(ϕ)	+17100	+1400	+7700	-13200	+1300	-1900	+600	+6800	-2800	-5800	-6500	+7600

CAL YR 1985 MAX 170300 MIN 132600 (ϕ) +5300
WTR YR 1986 MAX 207100 MIN 134700 (ϕ) +12300

(†) Elevation, in feet, at end of month.
(ϕ) Change in contents, in acre-feet.

08096500 BRAZOS RIVER AT WACO, TX

LOCATION.--Lat 31°32'06", long 97°04'22", McLennan County, Hydrologic Unit 12060202, on left bank 2.2 mi downstream from bridge on LaSalle Avenue and at mile 400.7.

DRAINAGE AREA.--29,573 mi², approximately, of which 9,566 mi² probably is noncontributing.

PERIOD OF RECORD.--September 1898 to current year (January 1912 to September 1914 monthly records only, published in WSP 1312).

REVISED RECORDS.--WSP 850 and 878: 1899-1900, 1907-9 (monthly and yearly summaries only). WSP 1512: 1901-5, 1910, 1915, 1925-26(M), 1927-29. WSP 1922: 1957. WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 349.34 ft above National Geodetic Vertical Datum of 1929. Sept. 14, 1898, to Mar. 28, 1918, May 6, 1922, to Feb. 12, 1925, nonrecording gage, and May 28, 1918, to May 5, 1922, Feb. 13, 1925, to Aug. 14, 1969, water-stage recorder. Prior to Aug. 14, 1969, at site 3.9 mi upstream at datum 7.46 ft higher.

REMARKS.--No estimated daily discharges: Records good. Flow is largely regulated by Lake Whitney and by Waco Lake (stations 08092500 and 08095550). Combined capacity for 18 reservoirs above station, 4,135,000 acre-ft, of which 2,194,000 acre-ft is flood-control storage in Lake Whitney and in Waco Lake. The city of Waco diverts water above station for municipal use, and the Brazos River Authority returns treated sewage effluent to river above station. Many other small diversions above station for municipal supply, irrigation and oilfield operations will not appreciably affect flow. Several observations of water temperature were made during the year. Gage-height telemeter located at station. Flow is affected at times by discharge from the flood-detention pools of eleven floodwater-retarding structures with a combined detention capacity of 6,420 acre-ft. These structures control runoff from 20.4 mi² in the Aquilla and Hackberry Creeks drainage basins.

AVERAGE DISCHARGE.--42 years (water years 1899-1940) unregulated, 2,560 ft³/s (1,855,000 acre-ft/yr); 46 years (water years 1940-86) regulated, 2,169 ft³/s (1,571,000 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 246,000 ft³/s Sept. 27, 1936 (gage height, 40.90 ft), at former site and datum, levee on left bank was overtopped and broken by flood; no flow Aug. 20, 21, 1918, and probably for several days in August 1923.

Maximum stage since at least 1847, that of Sept. 27, 1936.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage for 1847-98, 34.63 ft May 28, 1885, from floodmark at site 3.9 mi upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,000 ft³/s Jun. 11 at 1930 hours (gage height, 17.23 ft); minimum daily, 13 ft³/s Aug. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	383	1280	435	2070	382	1180	473	1900	1820	3030	957	141
2	186	1080	471	2350	119	650	423	1330	4390	1070	1060	89
3	153	1180	1610	1900	6400	838	407	936	3620	791	1010	1360
4	282	1160	1470	1610	7030	1240	451	191	3940	1410	1020	3790
5	125	1100	1560	1360	2570	325	408	1160	4700	845	163	3150
6	157	896	1180	1630	3120	203	164	1970	6890	837	1920	4450
7	174	531	837	1610	4270	155	102	1700	8400	807	1260	3360
8	201	692	481	1430	4020	146	438	1270	6890	786	13	876
9	385	1450	493	2260	4080	152	209	1450	6540	807	654	4430
10	311	1040	575	840	3970	341	600	2880	8080	788	983	4960
11	179	1040	8670	456	3730	532	131	2810	13800	1880	650	4590
12	159	780	5340	355	3740	1090	121	2190	13500	3380	161	4480
13	148	512	3210	410	3640	1110	467	2430	11100	2530	267	4510
14	162	358	2870	931	3240	971	1210	2080	10900	455	977	4490
15	190	401	3270	1290	1820	531	1470	2100	10600	81	902	4520
16	148	609	3190	378	1870	1050	1680	1730	10500	2570	859	4550
17	173	335	3510	630	1940	957	868	1910	10300	1800	944	4550
18	164	377	3570	2060	1850	1210	636	2880	9520	828	904	4560
19	3340	305	3600	2040	1770	2670	509	758	8960	267	1060	3520
20	6520	138	3600	591	1870	870	597	781	6820	1110	911	3150
21	2130	135	3300	563	2040	154	469	1970	5530	1340	888	2840
22	2360	151	2910	417	953	245	685	2150	6240	2530	118	1000
23	839	147	2830	1130	468	145	686	1990	6220	1690	786	738
24	923	380	2440	705	442	139	649	1530	4410	1880	146	1370
25	904	207	2000	520	738	271	680	843	3070	1140	745	1350
26	2560	415	1830	231	2360	959	246	878	2960	929	886	1330
27	759	2260	740	767	1040	149	111	1060	2310	1070	1440	1300
28	718	2340	561	1100	878	311	475	1320	2260	974	1010	403
29	1330	711	256	621	---	451	1130	1340	2310	904	113	214
30	1300	505	285	173	---	206	1260	2140	2230	1270	805	237
31	1100	---	1170	375	---	121	---	1100	---	849	103	---
TOTAL	28463	22515	68264	32803	70350	19372	17755	50777	198810	40648	23715	80308
MEAN	918	751	2202	1058	2513	625	592	1638	6627	1311	765	2677
MAX	6520	2340	8670	2350	7030	2670	1680	2880	13800	3380	1920	4960
MIN	125	135	256	173	119	121	102	191	1820	81	13	89
AC-FT	56460	44660	135400	65060	139500	38420	35220	100700	394300	80630	47040	159300

CAL YR 1985 TOTAL 584906 MEAN 1602 MAX 8670 MIN 125 AC-FT 1160000
WTR YR 1986 TOTAL 653780 MEAN 1791 MAX 13800 MIN 13 AC-FT 1297000

08098290 BRAZOS RIVER NEAR HIGHBANK, TX
(National stream-quality accounting network)

LOCATION.--Lat 31°08'02", long 96°49'29", Falls County, Hydrologic Unit 12070101, near right bank 45 ft downstream from bridge on Farm Road 413, 1.4 mi downstream from Highbank Slough and Spring Branch, 2.6 mi south of Highbank, and at mile 346.6.

DRAINAGE AREA.--30,436 mi² of which 9,566 mi² probably is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1965 to current year.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 279.29 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: June 21 to July 4. Records fair, except for estimated daily discharges which are poor. Many diversions above station for municipal supply, irrigation, and industrial use (amounts unknown). Flow is affected by 20 upstream reservoirs with a total combined capacity of 4,181,000 acre-ft. Water is diverted from the river upstream from this station by Texas Power and Light Co. to Tradinghouse Reservoir. Flow is affected at times by discharge from the flood-detention pools of 76 floodwater-retarding structures with a total combined detention capacity of 83,290 acre-ft. These structures control runoff from 238 mi² in the Aquilla, Tehuacana, Castleman Creeks, and Cow Bayou drainage basins. Gage-height telemeter at station.

AVERAGE DISCHARGE.--21 years, 2,440 ft³/s (1,768,000 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 78,700 ft³/s Feb. 4, 1986 (gage height, 23.90 ft); minimum daily, 32 ft³/s Oct. 4-5, 1984.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stages since at least 1909, 42 ft in December 1913 and 40 ft in September 1936, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 78,700 ft³/s Feb. 4 at 0400 hours (gage height, 23.90 ft); minimum daily, 237 ft³/s Oct. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2720	1210	3440	1110	508	1130	434	8890	1430	2700	860	459
2	1140	1300	2410	1650	575	1240	501	7680	6020	4200	915	242
3	525	1120	2080	1820	14100	1060	620	4590	5520	1500	996	242
4	358	1200	1830	1610	66400	1090	510	3440	4050	934	973	884
5	374	1170	1610	1390	20900	1200	587	1580	3910	1320	956	2800
6	310	1140	1590	1260	10100	805	595	1340	7630	981	509	2970
7	237	1070	1380	1420	8910	614	533	1870	10500	901	1420	3640
8	250	753	1190	1390	6860	566	414	1640	11600	900	1320	3320
9	259	813	929	1270	5760	536	450	1640	8260	883	309	1220
10	359	1190	949	1710	5480	525	968	3770	7660	871	411	3740
11	513	1110	17600	1120	4890	526	1630	7980	11900	872	907	4150
12	337	1320	23600	623	4030	704	748	5970	20300	1580	841	3840
13	262	1090	12900	481	3720	1100	560	4800	16700	2740	347	3670
14	239	873	7760	720	3500	1140	556	3430	14500	2070	367	3710
15	463	656	5590	938	2920	1080	1060	2110	13000	897	688	3710
16	933	620	4030	1230	1950	892	1450	1930	12300	371	832	3750
17	606	812	3480	986	1880	984	1400	1910	12200	1680	846	3770
18	387	753	3670	795	1830	1040	1000	4310	12000	1600	892	3780
19	1010	638	3690	1830	1810	1280	911	3750	11400	1170	811	3770
20	8560	709	3790	1890	1790	1920	696	1740	10600	365	949	2840
21	9800	483	3430	917	1740	1060	754	1160	9000	922	843	2430
22	4480	360	3020	774	1860	555	722	1680	7500	1250	845	2120
23	3000	355	2610	638	1300	470	774	1740	8000	1910	467	1090
24	1600	7210	2490	1040	943	496	843	1640	8000	1390	551	805
25	1460	5570	2120	924	883	432	844	1310	5400	1580	460	1140
26	1310	4960	1790	780	1140	423	866	939	3800	1090	506	1160
27	2310	8460	1670	521	1900	902	700	861	3500	910	847	1150
28	1130	12000	1170	706	1230	547	554	958	2700	957	1300	1130
29	977	8540	848	1080	---	461	568	1080	2600	953	1010	642
30	1280	4930	713	895	---	581	1100	1130	2800	849	495	383
31	1310	---	585	535	---	564	---	1770	---	1110	527	---
TOTAL	48499	72415	123964	34053	178909	25923	23348	88638	254780	41456	24000	68557
MEAN	1564	2414	3999	1098	6390	836	778	2859	8493	1337	774	2285
MAX	9800	12000	23600	1890	66400	1920	1630	8890	20300	4200	1420	4150
MIN	237	355	585	481	508	423	414	861	1430	365	309	242
AC-FT	96200	143600	245900	67540	354900	51420	46310	175800	505400	82230	47600	136000

CAL YR 1985 TOTAL 784315 MEAN 2149 MAX 23600 MIN 237 AC-FT 1556000
WTR YR 1986 TOTAL 984542 MEAN 2697 MAX 66400 MIN 237 AC-FT 1953000

08098290 BRAZOS RIVER NEAR HIGHBANK, TX--Continued
(National stream-quality accounting network)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: November 1967 to current year. Pesticide analyses: November 1976 to June 1981. Sediment analyses: October 1974 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1967 to current year.
WATER TEMPERATURES: November 1967 to February 1984.

INSTRUMENTATION.--Beginning October 1980, specific conductance is recorded continuously at this station. From October 1980 to February 1984 water temperature was recorded continuously at this station.

REMARKS.--Interruptions in the record were due to malfunctions of the instrument. Where maximum or minimum specific conductance values are not shown, mean value is estimated. Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the Geological Survey District office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,000 microsiemens Aug. 24, 1978; minimum daily, 140 microsiemens Mar. 8, 1984.
WATER TEMPERATURES (1967-84): Maximum daily, 35.5°C July 15, 16, 1978; minimum daily, 0.0°C Dec. 29-31, 1983.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,300 microsiemens Aug. 28; minimum daily, 200 microsiemens Nov. 24.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT												
24...	1330	1490	1460	7.70	22.5	9.0	8.0	93	0.5	500	3100	280
FEB												
25...	1315	932	1400	8.10	16.0	21	9.8	100	0.7	K72	K17	310
APR												
15...	1305	1280	1180	8.00	19.5	75	8.5	93	2.7	440	150	280
JUL												
22...	1302	1240	1860	8.90	30.5	--	9.8	--	4.9	28	40	350

DATE	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT												
24...	180	82	18	190	5	5.8	101	170	310	0.3	8.1	855
FEB												
25...	130	94	17	160	4	5.2	177	160	230	0.5	6.3	800
APR												
15...	110	89	15	130	3	4.9	179	130	190	0.3	8.1	689
JUL												
22...	210	99	24	250	6	6.3	139	220	400	0.3	5.5	1120

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE CIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
OCT												
24...	850	0.89	0.02	0.91	0.16	0.10	0.64	0.8	0.20	0.11	0.10	0.31
FEB												
25...	780	1.28	0.02	1.30	0.09	0.07	0.61	0.7	0.15	0.11	0.09	0.28
APR												
15...	670	--	<0.01	<0.10	0.23	0.02	0.67	0.9	0.30	0.27	0.01	0.03
JUL												
22...	1100	0.14	0.02	0.16	0.06	0.04	1.2	1.3	0.37	0.13	0.13	0.4

DATE	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CP)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
OCT												
24...	119	479	98	<10	3	120	<0.5	<1	<1	<3	1	<3
FEB												
25...	139	350	88	<10	1	120	<0.5	<1	<1	<3	2	<5
APR												
15...	447	1540	99	--	--	--	--	--	--	--	--	--
JUL												
22...	105	352	93	<10	3	130	<0.5	7	<1	<3	<1	4

08098290 BRAZOS RIVER NEAR HIGHBANK, TX--Continued
(National stream-quality accounting network)

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 24...	1	20	2	<0.1	<10	1	<1	1	1100	<6	7
FEB 25...	<1	22	42	<0.1	<10	1	<1	<1	1200	<6	41
APR 15...	--	--	--	--	--	--	--	--	--	--	--
JUL 22...	<5	25	2	<0.1	<10	1	<1	<1	1300	<6	13

MONTHLY AND ANNUAL MEANS AND LOADS FOR OCTOBER 1985 TO SEPTEMBER 1986

MONTH YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (MG/L)	DIS- SOLVED SOLIDS (TONS)	DIS- SOLVED CHLORIDE (MG/L)	DIS- SOLVED CHLORIDE (TONS)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT. 1985	48499	951	538	70400	170	21800	100	13500	210
NOV. 1985	72415	745	421	82300	130	24800	81	15800	170
DEC. 1985	123964	682	384	129000	110	35800	74	24600	170
JAN. 1986	34053	1460	831	76400	280	25700	160	14600	310
FEB. 1986	178909	684	385	186000	110	52500	74	35700	170
MAR. 1986	25923	1690	959	67200	340	23600	180	12800	340
APR. 1986	23348	1520	866	54600	290	18600	170	10400	320
MAY 1986	88638	1110	625	150000	190	45500	120	28700	250
JUNE 1986	254780	945	533	367000	160	109000	100	70300	220
JULY 1986	41456	1910	1090	122000	400	44900	210	23300	360
AUG. 1986	24000	2060	1180	76200	450	28900	220	14500	370
SEPT 1986	68557	1830	1050	194000	380	70700	200	37000	350
TOTAL	984542	**	**	1574000	**	502000	**	301000	**
WTD.AVG.	2697	1050	592	**	190	**	110	**	230

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	1290	460	715	1450	1100	1340	540	510	528	1400	1210	1280
2	500	450	468	1340	1070	1240	540	490	519	1440	950	1140
3	550	490	524	1380	1110	1250	580	490	531	1260	990	1120
4	680	540	594	1390	950	1180	610	580	600	1410	1130	1260
5	890	640	776	1370	970	1240	1060	570	875	1470	1390	1450
6	1120	880	1020	1520	1180	1390	1090	850	968	1370	1080	1170
7	1200	1060	1130	1550	1210	1430	1160	1070	1120	1230	910	1090
8	1250	1140	1200	1510	1200	1380	1290	1130	1230	1230	910	1120
9	1380	1210	1290	1650	1210	1370	1350	1300	1330	1240	1130	1160
10	1570	1370	1470	2090	1720	1930	1520	1070	1440	1450	1130	1280
11	1550	1450	1510	2170	2090	2120	990	280	449	1500	1390	1460
12	1640	1540	1590	2190	1950	2120	530	300	381	1470	1450	1460
13	1770	1600	1680	1850	1110	1290	380	310	331	1490	1420	1460
14	1780	1640	1710	1690	1210	1540	580	390	488	1580	1280	1410
15	1640	1340	1570	1880	1680	1790	650	580	622	1600	1300	1500
16	1260	810	920	1880	1790	1850	1110	660	937	1290	1090	1150
17	1060	830	947	1810	1700	1780	1230	1090	1160	1130	880	1030
18	1230	1060	1130	1780	1490	1670	1350	1080	1230	1230	1140	1180
19	1190	1100	1150	1710	1510	1630	1250	1040	1140	1660	1240	1380
20	1160	430	750	1760	1420	1640	1190	1040	1120	1930	1680	1850
21	450	360	402	1480	1330	1400	1310	1100	1200	2000	1920	1970
22	670	450	522	1510	1450	1480	1220	1080	1140	2010	1970	1990
23	1620	710	1220	1510	1450	1480	1130	970	10[illegible]	2010	1920	1970
24	1620	1290	1470	1490	200	468	1000	750	883	2030	1930	1970
25	1430	1120	1250	430	370	395	900	760	828	2090	1980	2040
26	1620	1390	1450	590	400	526	1050	790	964	2130	2020	2080
27	2130	1620	1850	400	310	345	1200	930	1090	2030	1950	2000
28	2160	2060	2120	570	320	396	1150	1010	1080	1990	1920	1950
29	2040	1800	1930	480	340	421	1170	1080	1130	1980	1870	1930
30	1810	1720	1760	540	480	517	1150	1090	1120	1870	1670	1780
31	1780	1170	1490	---	---	---	1210	1160	1190	1670	1550	1620
MONTH	2160	360	1210	2190	200	1290	1520	280	925	2130	880	1520

08098290 BRAZOS RIVER NEAR HIGHBANK, TX--Continued
(National stream-quality accounting network)

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1600	1530	1570	1870	1760	1830	1730	1700	1710	1920	840	1390
2	1750	1600	1690	1950	1860	1920	1750	1700	1720	980	800	898
3	1780	390	1410	2010	1900	1950	1720	1650	1690	1120	970	1030
4	470	350	430	1950	1820	1890	1680	1650	1660	1150	1020	1090
5	480	400	450	1930	1790	1870	1760	1690	1730	1380	1090	1230
6	490	410	449	1890	1840	1870	1750	1680	1720	1500	1330	1410
7	440	420	426	1920	1820	1870	1770	1680	1720	1960	1420	1760
8	580	430	499	1810	1710	1780	1710	1690	1700	2220	1510	1900
9	710	580	622	1700	1610	1660	---	---	1640	1750	1160	1520
10	850	710	775	1620	1500	1570	---	---	1470	1450	880	1130
11	890	800	841	1520	1460	1500	---	---	1100	1090	790	925
12	890	850	871	1500	1440	1470	---	---	1420	980	790	883
13	880	840	858	1810	1500	1670	---	---	1500	1030	920	972
14	940	870	905	1870	1740	1830	---	---	1510	1120	970	1050
15	970	900	930	1730	1390	1530	1330	1080	1240	1310	1100	1200
16	1000	920	955	1390	1260	1320	1700	1360	1570	1510	1150	1330
17	1120	950	1010	1280	1200	1240	1840	1460	1720	1620	1020	1300
18	1140	1040	1100	1190	1150	1160	1420	990	1170	1130	850	988
19	1200	1050	1150	1500	1180	1340	1070	990	1030	1200	930	1080
20	1330	1170	1260	1890	1520	1720	1080	1040	1060	1230	1050	1110
21	1360	1280	1320	1930	1870	1900	1240	1060	1160	1200	1060	1100
22	1380	1340	1360	1920	1870	1890	1320	1240	1290	1090	890	1010
23	1430	1360	1400	1890	1810	1850	1370	1320	1350	920	820	870
24	1400	1340	1380	1840	1710	1790	1460	1370	1420	920	810	852
25	1460	1390	1420	1730	1640	1690	1680	1440	1570	1010	840	927
26	1560	1470	1520	1660	1580	1630	1950	1690	1820	1040	930	988
27	1770	1560	1690	1690	1570	1620	2140	1960	2030	1120	1040	1090
28	1780	1750	1760	1730	1660	1700	2150	1980	2050	1130	1100	1120
29	---	---	---	1860	1730	1810	2210	1990	2060	1130	1100	1120
30	---	---	---	1840	1760	1800	2130	1940	2000	1150	1110	1130
31	---	---	---	1760	1710	1730	---	---	---	1190	1130	1160
MONTH	1780	350	1070	2010	1150	1690	2210	990	1560	2220	790	1150

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	1240	1090	1190	1720	1660	1700	2090	2030	2060	---	---	2080
2	1100	620	813	1770	1720	1740	2090	1970	2050	---	---	2120
3	790	550	614	1780	1740	1750	2030	1970	2020	---	---	2150
4	610	580	604	1880	1740	1810	2080	2000	2060	---	---	2040
5	630	600	616	1940	1830	1890	2070	1980	2020	2030	1780	1960
6	630	590	613	1930	1890	1910	---	---	2210	1720	1160	1410
7	630	570	602	1890	1850	1880	2100	1960	2030	1440	1020	1270
8	570	520	540	1920	1840	1880	2160	2060	2120	1460	970	1240
9	540	480	515	1940	1870	1910	---	---	2190	1280	990	1190
10	590	500	551	1860	1720	1810	---	---	2060	1640	1090	1260
11	680	580	620	1740	1690	1710	1860	1800	1830	1770	1660	1730
12	730	650	692	1850	1700	1790	1930	1770	1870	2070	1700	1930
13	770	730	743	1950	1850	1910	---	---	2110	2070	2050	2060
14	900	770	848	2050	1950	2000	---	---	2080	2070	2040	2060
15	970	900	941	2040	1930	2000	2010	1900	1960	2080	2030	2060
16	1010	970	993	2020	1910	1990	1890	1830	1870	2090	2060	2070
17	1040	1000	1030	1950	1860	1910	2060	1890	1990	2090	2040	2070
18	1070	1030	1050	1890	1810	1860	2140	2030	2110	2060	2040	2050
19	1120	1060	1090	1980	1610	1840	2140	2070	2110	2050	2020	2030
20	1190	1130	1170	1990	1900	1950	2190	2070	2140	2050	2010	2030
21	1290	1160	1260	1990	1930	1950	2150	2080	2120	2040	1990	2020
22	1390	1290	1350	2090	1920	1970	2150	2000	2120	2000	1920	1950
23	1520	1400	1470	2180	2100	2140	---	---	2170	1920	1830	1880
24	1580	1520	1560	2160	2120	2140	2060	1990	2010	1860	1800	1820
25	1620	1580	1600	2190	2080	2140	---	---	2090	1890	1790	1840
26	1620	1590	1600	2130	2070	2100	1990	1950	1980	1930	1790	1870
27	1650	1600	1630	2120	2030	2080	2130	1970	2060	1940	1880	1920
28	1670	1630	1650	2040	1990	2010	2300	2010	2210	1970	1860	1930
29	1680	1640	1650	2040	1900	2010	2210	2070	2150	1970	1920	1950
30	1680	1610	1660	2060	1970	2030	---	---	2040	1920	1860	1880
31	---	---	---	2060	1980	2030	---	---	2050	---	---	---
MONTH	1680	480	1040	2190	1610	1930	2300	1770	2060	2090	970	1860

08099100 LEON RIVER NEAR DE LEON, TX

LOCATION.--Lat 32°10'25", long 98°31'58", Comanche County, Hydrologic Unit 12070201, on left bank at downstream end of bridge on State Highway 16, 1.5 mi upstream from Flat Creek, 4.4 mi northeast of De Leon, 6 mi downstream from Hog Creek, and 250.1 mi upstream from mouth.

DRAINAGE AREA.--479 mi².

PERIOD OF RECORD.--September 1960 to September 1985 (discontinued as a continuous-record station; converted to a flood-hydrograph station).
Water-quality records.--Chemical and biochemical analyses: October 1980 to September 1982.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,209.93 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 22, 1960, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Only discharges greater than 600 ft³/s are published. Records good. Flow is partly regulated by Leon Reservoir (station 08099000) about 17.5 mi upstream. Numerous diversions above station for municipal, steam powerplant operation and other uses. Recording rain gage discontinued May 31, 1978.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,540 ft³/s Jan. 21, 1968 (gage height, 15.50 ft); no flow for many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--A stage of 19.3 ft occurred in May 1908 at a point 2,000 ft downstream from present gage site and is the highest since that time, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,390 ft³/s June 6 at 0400 hours (gage height, 15.45 ft); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	2.2	1.6	1.3	1.3	.71	1.5	1.5	736	6.8	1.1	10
2	.00	2.6	1.0	1.3	7.0	.71	1.5	1.5	968	6.1	1.1	33
3	.00	2.1	1.1	1.3	595	.71	1.5	1.5	1700	6.1	1.2	30
4	.00	2.1	1.1	1.3	31	.71	1.5	1.5	1140	6.1	1.1	9.8
5	.00	2.1	1.0	1.1	8.1	.71	1.5	1.5	5100	14	1.1	3.9
6	.00	1.9	.98	1.2	23	.79	1.5	1.5	3840	16	1.1	2.5
7	.00	1.9	.98	1.3	7.0	.84	1.5	1.5	997	8.0	1.1	1.5
8	.00	1.6	.98	1.3	3.1	.84	1.5	252	263	7.5	1.1	1.5
9	.00	1.6	.98	1.4	2.6	.84	1.5	1060	656	5.7	1.1	1.3
10	.00	1.5	1.4	1.5	2.5	.84	1.5	870	175	4.1	1.2	1.3
11	.00	1.5	1.7	1.2	1.6	.92	1.5	63	104	3.7	1.1	1.5
12	.00	1.5	1.7	.84	1.5	1.1	1.5	21	75	3.4	1.2	1.4
13	.00	1.5	1.7	.80	1.5	1.1	1.5	11	47	3.3	1.6	1.3
14	.00	1.6	1.5	.78	1.4	1.1	1.5	6.6	37	2.6	1.1	2.0
15	.00	1.5	1.5	1.1	1.3	.98	1.3	4.2	31	2.5	1.1	2.6
16	.00	.98	1.5	1.3	1.3	.98	1.3	2.8	31	2.4	1.1	3.1
17	.00	.98	1.5	1.2	1.3	.98	1.3	459	27	2.4	1.1	3.7
18	.00	.98	1.5	1.1	1.3	1.4	1.5	112	582	2.9	1.1	4.0
19	571	1.1	1.3	1.2	1.5	1.4	1.6	33	131	2.1	1.1	4.0
20	300	1.1	1.4	1.3	1.3	.98	1.6	15	47	2.4	1.1	3.8
21	30	1.1	1.5	1.3	.71	.98	1.5	8.7	35	2.4	1.1	2.1
22	11	1.1	1.5	1.3	.71	.98	1.5	5.4	28	291	1.1	1.6
23	4.4	1.1	1.3	.97	.71	.98	1.5	4.0	22	34	1.1	2.1
24	3.2	1.1	.98	1.1	.71	.98	1.5	3.0	18	12	1.1	2.1
25	2.3	1.1	.98	.84	.71	1.2	1.5	3.3	15	5.6	1.1	2.1
26	2.0	1.5	1.0	.61	.71	1.5	1.5	3.4	14	3.3	1.1	2.2
27	1.4	90	1.1	.71	.71	1.5	1.5	2.9	11	2.1	1.1	2.5
28	1.3	11	1.1	1.0	.71	1.5	1.5	2.6	11	1.1	1.3	2.0
29	2.0	3.4	1.2	1.2	---	1.5	1.5	2.6	9.3	1.1	1.3	2.1
30	1.9	2.4	1.3	1.0	---	1.5	1.5	2.4	8.8	1.1	1.3	2.2
31	1.9	---	1.3	.92	---	1.5	---	229	---	1.1	1.3	---
TOTAL	932.40	146.14	39.68	34.77	700.28	32.76	44.6	3187.4	16859.1	462.9	35.7	143.2
MEAN	30.1	4.87	1.28	1.12	25.0	1.06	1.49	103	562	14.9	1.15	4.77
MAX	571	90	1.7	1.5	595	1.5	1.6	1060	5100	291	1.6	33
MIN	.00	.98	.98	.61	.71	.71	1.3	1.5	8.8	1.1	1.1	1.3
CFSM	.11	.02	.00	.00	.09	.00	.01	.39	2.13	.06	.00	.02
IN.	.13	.02	.01	.00	.10	.00	.01	.45	2.38	.07	.01	.02
AC-FT	1850	290	79	69	1390	65	88	6320	33440	918	71	284

CAL YR 1985 TOTAL 7338.25 MEAN 20.1 MAX 2290 MIN .00 CFSM .08 IN. 1.03 AC-FT 14560
WTR YR 1986 TOTAL 22618.93 MEAN 62.0 MAX 5100 MIN .00 CFSM .23 IN. 3.19 AC-FT 44860

08099300 SABANA RIVER NEAR DE LEON, TX

LOCATION.--Lat 32°06'50", long 98°36'19", Comanche County, Hydrologic Unit 12070201, on left bank at downstream end of bridge on Farm Road 587, 0.6 mi downstream from Spring Branch, 4.0 mi west of De Leon, 4.2 mi upstream from Turkey Creek, and 12.2 mi upstream from mouth.

DRAINAGE AREA.--264 mi².

PERIOD OF RECORD.--September 1960 to September 1985 (discontinued as a continuous-record station; converted to a flood-hydrograph station).

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,209.59 ft above National Geodetic Vertical Datum of 1929 (levels by State Department of Highways and Public Transportation). Prior to Nov. 22, 1960, nonrecording gage at present site and datum.

REMARKS.--No estimated daily discharges. Only discharges above 250 ft³/s are published. Records good. Flow is affected by Nabors Lake (capacity unknown) on Spring Branch. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,800 ft³/s June 12, 1967 (gage height, 22.05 ft); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1890, 24 ft in May 1908, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 19	2100	1,660	15.45	June 1	2400	1,900	16.42
May 9	0430	2,590	18.52	June 2	0430	2,480	18.25
May 10	0430	1,670	15.52	June 3	2330	3,880	20.13
May 17	2030	1,540	14.97	June 5	1930	*10,400	*21.99

Minimum discharge, no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	2.2	1.6	1.3	1.3	.71	1.5	1.5	736	6.8	1.1	10
2	.00	2.6	1.0	1.3	7.0	.71	1.5	1.5	968	6.1	1.1	33
3	.00	2.1	1.1	1.3	595	.71	1.5	1.5	1700	6.1	1.2	30
4	.00	2.1	1.1	1.3	31	.71	1.5	1.5	1140	6.1	1.1	9.8
5	.00	2.1	1.0	1.1	8.1	.71	1.5	1.5	5100	14	1.1	3.9
6	.00	1.9	.98	1.2	23	.79	1.5	1.5	3840	16	1.1	2.5
7	.00	1.9	.98	1.3	7.0	.84	1.5	1.5	997	8.0	1.1	1.5
8	.00	1.6	.98	1.3	3.1	.84	1.5	252	263	7.5	1.1	1.5
9	.00	1.6	.98	1.4	2.6	.84	1.5	1060	656	5.7	1.1	1.3
10	.00	1.5	1.4	1.5	2.5	.84	1.5	870	175	4.1	1.2	1.3
11	.00	1.5	1.7	1.2	1.6	.92	1.5	63	104	3.7	1.1	1.5
12	.00	1.5	1.7	.84	1.5	1.1	1.5	21	75	3.4	1.2	1.4
13	.00	1.5	1.7	.80	1.5	1.1	1.5	11	47	3.3	1.6	1.3
14	.00	1.6	1.5	.78	1.4	1.1	1.5	6.6	37	2.6	1.1	2.0
15	.00	1.5	1.5	1.1	1.3	.98	1.3	4.2	31	2.5	1.1	2.6
16	.00	.98	1.5	1.3	1.3	.98	1.3	2.8	31	2.4	1.1	3.1
17	.00	.98	1.5	1.2	1.3	.98	1.3	459	27	2.4	1.1	3.7
18	.00	.98	1.5	1.1	1.3	1.4	1.5	112	582	2.9	1.1	4.0
19	571	1.1	1.3	1.2	1.5	1.4	1.6	33	131	2.1	1.1	4.0
20	300	1.1	1.4	1.3	1.3	.98	1.6	15	47	2.4	1.1	3.8
21	30	1.1	1.5	1.3	.71	.98	1.5	8.7	35	2.4	1.1	2.1
22	11	1.1	1.5	1.3	.71	.98	1.5	5.4	28	291	1.1	1.6
23	4.4	1.1	1.3	.97	.71	.98	1.5	4.0	22	34	1.1	2.1
24	3.2	1.1	.98	1.1	.71	.98	1.5	3.0	18	12	1.1	2.1
25	2.3	1.1	.98	.84	.71	1.2	1.5	3.3	15	5.6	1.1	2.1
26	2.0	1.5	1.0	.61	.71	1.5	1.5	3.4	14	3.3	1.1	2.2
27	1.4	90	1.1	.71	.71	1.5	1.5	2.9	11	2.1	1.1	2.5
28	1.3	11	1.1	1.0	.71	1.5	1.5	2.6	11	1.1	1.3	2.0
29	2.0	3.4	1.2	1.2	---	1.5	1.5	2.6	9.3	1.1	1.3	2.1
30	1.9	2.4	1.3	1.0	---	1.5	1.5	2.4	8.8	1.1	1.3	2.2
31	1.9	---	1.3	.92	---	1.5	---	229	---	1.1	1.3	---
TOTAL	932.40	146.14	39.68	34.77	700.28	32.76	44.6	3187.4	16859.1	462.9	35.7	143.2
MEAN	30.1	4.87	1.28	1.12	25.0	1.06	1.49	103	562	14.9	1.15	4.77
MAX	571	90	1.7	1.5	595	1.5	1.6	1060	5100	291	1.6	33
MIN	.00	.98	.98	.61	.71	.71	1.3	1.5	8.8	1.1	1.1	1.3
CFSM	.11	.02	.00	.00	.09	.00	.01	.39	2.13	.06	.00	.02
IN.	.13	.02	.01	.00	.10	.00	.01	.45	2.38	.07	.01	.02
AC-FT	1850	290	79	69	1390	65	88	6320	33440	918	71	284

CAL YR 1985 TOTAL 7338.25 MEAN 20.1 MAX 2290 MIN .00 CFSM .08 IN. 1.03 AC-FT 14560
WTR YR 1986 TOTAL 22618.93 MEAN 62.0 MAX 5100 MIN .00 CFSM .23 IN. 3.19 AC-FT 44860

08099400 PROCTOR LAKE NEAR PROCTOR, TX

LOCATION.--Lat 31°58'07", long 98°29'09", Comanche County, Hydrologic Unit 12070201, in intake structure at Proctor Lake on Leon River, 2.0 mi upstream from U.S. Highways 67 and 377, 3.5 mi west of Proctor, and 228.1 mi upstream from mouth.

DRAINAGE AREA.--1,259 mi².

PERIOD OF RECORD.--January 1963 to current year. Prior to October 1970, published as Proctor Reservoir.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to May 28, 1963, nonrecording gage at same site and datum.

REMARKS.--The lake is formed by a reinforced concrete gated structure and rolled earthfill dam, total length, 13,460 ft. The lake was operated as a detention basin from Jan. 30 to July 5, 1963. The gates were closed July 6, 1963, but the lake was operated to elevation 1,156.0 ft until construction was completed. Deliberate impoundment began Sept. 30, 1963. The spillway is a gated concrete gravity structure located on the left bank, with an ogee weir section and stilling basin. The spillway is controlled by eleven 40.0- by 35.0-foot tainter gates. The spillway was designed to discharge 431,800 ft³/s at an elevation of 1,201.0 ft. The lake is operated for flood control and water conservation. Inflow is partly regulated by one major reservoir (see station 08099000). Inflow is also affected at times by discharge from the flood-detention pools of 23 floodwater-retarding structures with a combined detention capacity of 43,690 acre-ft. These structures control runoff from 172 mi² in the Leon River and Rush Creek drainage basins. The capacity table is based on a survey made in 1946. Borrow is not included in capacity totals. Gage-height telemeter at station. Figures given herein represent total contents. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	1,206.0	-
Design flood	1,201.0	433,000
Top of gates	1,197.0	374,200
Crest of spillway (top of conservation pool)	1,162.0	59,400
Lowest gated outlet (invert)	1,128.0	68

COOPERATION.--Records furnished by the U.S. Army Corps of Engineers and reviewed by the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 174,800 acre-ft June 12, 1986 (elevation, 1,179.33 ft); minimum since first filling of lake, 18,900 acre-ft Oct. 4, 1984 (elevation, 1,149.37 ft).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 174,200 acre-ft June 12 at 0800 hours (elevation, 1,179.33 ft); minimum daily, 42,870 acre-ft Oct. 13 at 2400 hours (elevation, 1,158.02 ft).

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,158.0	42,790	1,168.0	91,740	1,178.0	162,800
1,163.0	66,110	1,173.0	124,000	1,180.0	180,100

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43500	45470	44930	44060	43200	48020	46830	46750	72200	134300	80660	60180
2	43420	45390	44970	44060	43390	48020	46830	46710	75470	132200	79660	67050
3	43350	45320	44930	44060	45620	48060	46830	46590	80270	130900	78610	69060
4	43310	45240	44930	43980	47500	48020	46790	46440	87040	128900	77680	68460
5	43240	45200	44890	43910	48140	47980	46750	46400	109100	126700	76710	67900
6	43130	45200	44890	43910	48380	47900	46710	46360	143200	124300	75630	67900
7	42980	45050	44860	43870	48540	47940	46670	46280	156500	122000	74620	67100
8	42980	45050	44820	43800	48620	47860	46630	47180	163800	119800	73610	66410
9	42940	45050	44930	43800	48660	47820	46790	51710	169000	117300	72670	65570
10	42980	45050	45050	43760	48580	47780	46830	56670	171600	114400	71780	64840
11	42900	44970	44970	43800	48500	47780	46910	58520	173800	111900	71010	64020
12	42940	44930	44930	43720	48460	47740	46830	59160	173500	109300	70080	63150
13	42870	45010	44860	43680	48460	47660	46830	59390	171900	106800	69110	62390
14	42980	45010	44740	43680	48540	47620	46790	59440	170200	104400	68200	61580
15	42940	44970	44700	43650	48500	47620	46630	59480	168200	101900	67200	60690
16	42870	44930	44700	43650	48500	47580	46480	59530	166300	99260	66310	60090
17	43090	44930	44700	43650	48500	47660	46400	61070	164900	97140	65670	59670
18	43540	44930	44670	43650	48500	47780	46590	63250	164100	95110	64790	59480
19	44060	44930	44630	43650	48500	47660	47460	63820	162700	93710	63780	59390
20	45120	44860	44590	43610	48500	47540	47420	63920	160700	92260	62820	59350
21	45660	44780	44590	43610	48420	47460	47380	63870	158700	91230	61960	59260
22	45740	44700	44590	43540	48340	47380	47180	63820	156600	90640	61400	59160
23	45740	44700	44590	43500	48300	47340	47020	63780	154600	89620	60880	59120
24	45740	44630	44510	43460	48260	47260	46980	64020	152300	88680	60550	58980
25	45740	44550	44480	43460	48220	47220	46870	65230	149900	87620	60040	58930
26	45700	44590	44480	43390	48220	47220	46750	65520	147300	86690	59580	58800
27	45660	44780	44440	43310	48220	47140	46790	65430	144900	85640	59260	58700
28	45700	44930	44290	43310	48100	47100	46790	65230	142200	84670	59160	58700
29	45700	44930	44140	43280	---	47060	46670	65040	139600	83700	58890	58660
30	45510	44970	44140	43240	---	46950	46710	64990	136900	82730	58610	58570
31	45350	---	44100	43200	---	46950	---	66160	---	81720	58890	---
MAX	45740	45470	45050	44060	48660	48060	47460	66160	173800	134300	80660	69060
MIN	42870	44550	44100	43200	43200	46950	46400	46280	72200	81720	58610	58570
(†)	1158.68	1158.58	1158.35	1158.11	1159.38	1159.09	1159.03	1163.42	1174.76	1166.37	1161.89	1161.82
(‡)	+1700	-380	-870	-900	+4900	-1150	-240	+19450	+70740	-55180	-22830	-320

CAL YR 1985 MAX 82170 MIN 42870 (‡) -15290
WTR YR 1986 MAX 173800 MIN 42870 (‡) +14920

(†) Elevation, in feet, at end of month.
(‡) Change in contents, in acre-feet.

08099500 LEON RIVER NEAR HASSE, TX

LOCATION.--Lat 31°57'28", long 98°27'32", Comanche County, Hydrologic Unit 12070201, on left bank 110 ft left and 70 ft upstream from left upstream end of bridge on U.S. Highways 67 and 377 (revised), 500 ft upstream from Gulf, Colorado and Santa Fe Railway Co. bridge, 0.3 mi upstream from Walnut Creek, 2.0 mi downstream from Proctor Lake, 2.1 mi northeast of Hasse, and 225.2 mi upstream from mouth.

DRAINAGE AREA.--1,261 mi^2.

PERIOD OF RECORD.--January 1939 to current year.
Water-quality records.--Chemical and biochemical analyses: October 1980 to September 1982.

REVISED RECORDS.--WSP 1342: 1952. WSP 1392: 1952. WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,115.01 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair. Since October 1963, flow has been regulated by Proctor Lake (station 08099400). There are numerous diversions above station for municipal, steam powerplant operation, and other uses. Gage-height telemeter at station.

AVERAGE DISCHARGE.--24 years (water years 1940-63), prior to completion of Proctor Lake, 151 ft^3/s (109,400 acre-ft/yr); 23 years (water years 1964-86); regulated, 87.9 ft^3/s (63,680 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,500 ft^3/s May 24, 1952 (gage height, 21.49 ft); maximum gage height, 21.72 ft Oct. 4, 1959; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1858, occurred in May 1908, from information by local resident. At a site about 2.5 mi upstream, flood of May 1908 was 9.1 ft higher than that of May 24, 1952, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,790 ft^3/s Sept. 2 at 1200 hours (gage height, 12.80 ft); minimum daily, 0.04 ft^3/s Mar. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	1.6	1.2	1.4	3.2	2.4	.42	.63	349	1290	397	35
2	.40	2.6	1.2	1.6	3.7	.08	.46	1.9	154	1270	386	980
3	.19	1.8	1.2	1.4	6.0	.04	1.3	2.3	106	1280	399	203
4	.21	.92	1.3	1.7	3.1	.19	2.3	1.5	96	1230	406	453
5	.30	.71	1.8	2.5	4.7	.24	2.1	1.3	931	1210	399	477
6	.62	.87	2.1	2.0	4.0	.19	1.5	1.3	347	1200	401	568
7	1.2	1.2	1.8	1.6	1.8	.10	1.3	.85	521	1190	391	495
8	1.3	1.4	1.2	2.4	1.8	.10	2.0	78	657	1170	373	477
9	1.1	1.4	1.3	2.7	1.8	.10	1.1	135	576	1190	362	457
10	1.1	1.4	1.4	2.5	2.1	.13	5.1	11	563	1330	355	450
11	1.3	2.1	1.5	2.7	1.4	.22	3.8	2.4	632	1300	355	440
12	1.2	2.3	1.4	2.7	1.3	.30	3.4	1.4	829	1270	364	445
13	1.0	2.3	1.3	3.1	1.7	.46	3.4	1.0	1230	1260	357	442
14	.87	1.6	1.4	2.7	2.2	.66	3.0	1.2	1160	1230	354	452
15	1.5	2.1	1.2	2.6	2.4	.50	2.6	1.1	1150	1210	347	452
16	1.4	2.1	1.3	1.6	2.5	.48	2.6	1.0	1190	1200	349	308
17	2.0	2.3	1.2	1.9	2.5	.68	1.8	7.3	1120	1190	348	121
18	3.2	2.6	1.3	2.2	2.2	3.0	3.9	3.8	1090	1130	347	68
19	4.5	2.1	2.0	2.4	1.2	1.8	144	2.3	1100	780	316	5.7
20	1.8	1.7	2.2	2.7	1.7	1.5	4.2	2.4	1180	717	317	5.7
21	1.4	2.0	2.5	1.7	1.5	1.6	2.8	11	1170	705	317	6.8
22	.76	2.2	2.2	1.9	2.0	1.7	2.3	28	1160	753	229	6.7
23	1.0	2.3	1.9	2.6	3.0	1.6	1.6	27	1150	652	97	3.5
24	1.2	2.0	2.1	2.3	2.7	1.0	1.3	26	1200	471	97	3.6
25	2.1	49	2.3	1.3	2.4	.97	.84	28	1210	453	96	11
26	2.1	164	2.2	1.4	3.1	.81	.64	25	1240	433	95	20
27	1.1	3.2	2.1	2.6	2.2	.71	.68	30	1260	419	69	13
28	1.5	1.1	75	2.5	1.7	.44	1.5	56	1340	418	34	14
29	1.5	1.3	81	2.8	---	.42	.77	53	1320	417	34	13
30	1.2	1.1	2.3	2.6	---	.42	.44	92	1300	414	31	14
31	.89	---	1.5	2.8	---	.42	---	188	---	401	27	---
TOTAL	42.34	263.30	204.4	68.9	69.9	23.26	203.15	821.68	27331	29183	8449	7440.0
MEAN	1.37	8.78	6.59	2.22	2.50	.75	6.77	26.5	911	941	273	248
MAX	4.5	164	81	3.1	6.0	3.0	144	188	1340	1330	406	980
MIN	.19	.71	1.2	1.3	1.2	.04	.42	.63	96	401	27	3.5
AC-FT	84	522	405	137	139	46	403	1630	54210	57880	16760	14760

CAL YR 1985 TOTAL 39294.64 MEAN 108 MAX 639 MIN .19 AC-FT 77940
WTR YR 1986 TOTAL 74099.93 MEAN 203 MAX 1340 MIN .04 AC-FT 147000

08100000 LEON RIVER NEAR HAMILTON, TX

LOCATION.--Lat 31°47'19", long 98°07'16", Hamilton County, Hydrologic Unit 12070201, at downstream side of bridge on U.S. Highway 281, 2.2 mi upstream from Mesquite Creek, 3.6 mi downstream from Bear Creek, 5.9 mi north of Hamilton, and 172.9 mi upstream from mouth.

DRAINAGE AREA.--1,891 mi^2.

PERIOD OF RECORD.--January 1925 to September 1931, September 1960 to current year.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 955.38 ft above National Geodetic Vertical Datum of 1929. Jan. 7, 1925, to Sept. 30, 1931, nonrecording gage 1.4 mi downstream at datum 1.87 ft higher. Sept. 1 to Nov. 22, 1960, nonrecording gage at same site and at 5.00-foot higher datum. Nov. 22, 1960, to Sept. 30, 1972, recording gage at same site and at 5.00-foot higher datum.

REMARKS.--No estimated daily discharges. Records good. Since 1960, at least 10 percent of the drainage area is regulated by Proctor Lake (station 08099400) and by other smaller reservoirs. There are numerous diversions above station for irrigation, municipal supply, and industrial uses. Flow is affected at times by discharge from the flood-detention pools of 14 floodwater-retarding structures with a combined detention capacity of 11,610 acre-ft. These structures control runoff from 43.9 mi^2 in the northeast tributaries drainage basin. Gage-height telemeter was removed on Mar. 7, 1985. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--6 years (water years 1926-31) unregulated, 130 ft^3/s (94,180 acre-ft/yr); 26 years (water years 1961-86) regulated, 134 ft^3/s (97,080 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,600 ft^3/s Sept. 9, 1962 (gage height, 31.93 ft); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1858, 38.4 ft in May 1908 and December 1913; flood in September 1911 reached a stage of 37.0 ft, all at present site and datum, from information by local residents. The flood in October 1959 reached a stage of 34.1 ft, present datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,470 ft^3/s Sept. 3 at 1600 hours (gage height, 29.14 ft); no flow Oct. 10-14, and Nov. 5-26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	.15	6.2	17	.42	.81	.64	.65	224	1320	371	2280
2	12	.13	4.3	6.5	.77	.60	.65	.57	1420	1310	369	3300
3	6.0	.11	3.8	3.8	9.1	.55	.77	.47	956	1380	365	6880
4	3.1	.05	2.7	2.5	9.3	1.2	.95	.37	614	1500	374	4300
5	1.9	.00	2.4	1.7	5.2	1.6	1.2	.30	2740	1400	377	1210
6	1.2	.00	2.2	1.2	3.7	1.4	.51	.27	4550	1290	374	1350
7	.94	.00	1.4	1.2	4.5	1.4	.26	.18	4870	1220	374	1660
8	.42	.00	.98	1.1	3.5	1.6	.08	.23	1450	1200	374	1360
9	.10	.00	.92	.66	2.9	1.4	.07	154	1030	1170	364	857
10	.00	.00	.76	.56	2.9	1.0	.83	408	760	1150	355	714
11	.00	.00	.65	.70	2.5	.80	.52	225	662	1200	369	615
12	.00	.00	.52	1.7	2.0	.44	.59	104	621	1280	365	557
13	.00	.00	.50	1.6	2.3	.38	.67	42	689	1280	360	537
14	.00	.00	.45	1.7	1.9	.33	.60	22	976	1270	356	524
15	33	.00	.71	1.8	1.7	.35	.40	12	1250	1250	351	514
16	7.0	.00	1.4	2.0	1.6	.29	.19	7.1	1250	1210	347	504
17	3.4	.00	1.5	2.0	1.6	.26	.18	5.2	1270	1180	345	463
18	16	.00	1.3	1.9	1.3	.50	.18	49	1350	1150	349	292
19	117	.00	1.2	2.6	1.3	.31	.10	76	1260	1130	343	253
20	96	.00	1.5	2.2	1.7	.26	107	38	1170	943	333	133
21	31	.00	2.3	1.7	1.3	.22	57	20	1140	685	325	74
22	12	.00	2.6	1.3	1.0	.21	17	10	1180	672	324	62
23	6.0	.00	2.7	.89	1.1	.20	7.5	5.3	1180	727	302	55
24	4.0	.00	2.4	.83	1.1	.18	4.5	5.1	1150	644	185	51
25	2.6	.00	3.0	.74	1.0	.16	2.9	135	1150	484	175	47
26	2.1	.00	3.5	.72	1.1	.14	1.9	139	1210	433	169	44
27	1.4	35	3.4	.64	.96	.10	1.6	45	1240	422	164	40
28	.69	66	3.1	.58	.92	.13	1.3	29	1250	406	156	53
29	.38	20	2.7	.38	---	.17	.91	24	1270	394	85	47
30	.33	9.5	58	.31	---	.33	.69	44	1320	387	67	45
31	.22	---	58	.30	---	.53	---	51	---	376	56	---
TOTAL	379.78	130.94	177.09	62.81	68.67	17.85	211.69	1652.74	41202	30463	9223	28821
MEAN	12.3	4.36	5.71	2.03	2.45	.58	7.06	53.3	1373	983	298	961
MAX	117	66	58	17	9.3	1.6	107	408	4870	1500	377	6880
MIN	.00	.00	.45	.30	.42	.10	.07	.18	224	376	56	40
AC-FT	753	260	351	125	136	35	420	3280	81720	60420	18290	57170

CAL YR 1985 TOTAL 36451.66 MEAN 99.9 MAX 608 MIN .00 AC-FT 72300
WTR YR 1986 TOTAL 112410.57 MEAN 308 MAX 6880 MIN .00 AC-FT 223000

08100500 LEON RIVER AT GATESVILLE, TX

LOCATION.--Lat 31°25'58", long 97°45'42", Coryell County, Hydrologic Unit 12070201, on right bank at upstream side of county road bridge, 800 ft downstream from U.S. Highway 84 bridge in Gatesville, 0.3 mi downstream from Dodds Creek, 5.2 mi upstream from Cottonwood Creek, and 99.0 mi upstream from mouth.

DRAINAGE AREA.--2,342 mi^2.

PERIOD OF RECORD.--October 1950 to current year.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 723.85 ft above National Geodetic Vertical Datum of 1929. Oct. 1, 1950, to Feb. 8, 1951, nonrecording gage; Feb. 9, 1951, to Jan. 21, 1969, water-stage recorder; all at site 800 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Some upstream regulation by Proctor Lake (08099400) and other smaller reservoirs. Flow at times is slightly affected by discharge from 18 floodwater-retarding structures with a combined detention capacity of 12,600 acre-ft. These structures control runoff from 47.0 mi^2 in the northeast tributaries and Pecan Creek drainage basins. There are numerous diversions above station for irrigation, municipal supply, and oilfield operation. The city of Hamilton, located about 70 mi upstream from this station, diverts flow from the river for municipal use and returned sewage effluent to the stream. The city of Gatesville obtains all of their municipal water supply from ground-water wells but discharges sewage effluent back to the Leon River downstream from this station. Several observations of water temperature were made during the year. A U.S. Army Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--36 years, 226 ft^3/s (163,700 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 51,200 ft^3/s Oct. 4, 1959 (gage height, 34.14 ft), from rating curve extended above 41,000 ft^3/s; no flow at times in 1951-52, 1954-55, 1971, 1978-79, and 1984.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1854, about 35 ft in May 1908, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,770 ft^3/s June 6 at 2000 hours (gage height, 22.63 ft); minimum daily, 0.21 ft^3/s Oct. 6, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.54	1.8	1.5	8.3	6.7	8.0	5.5	196	168	1450	392	96
2	.33	1.9	2.9	8.7	6.7	8.1	5.3	36	501	1460	380	924
3	.28	1.8	19	31	94	9.1	5.4	14	1430	1460	376	2530
4	.25	1.3	13	29	55	9.7	5.6	8.3	1420	1460	387	3350
5	.24	1.2	9.0	21	82	9.0	5.3	6.3	1020	1670	386	4000
6	.21	1.0	6.9	17	89	8.6	5.3	5.4	3270	1580	389	3180
7	.22	1.0	5.4	15	31	8.3	4.8	4.7	4630	1480	387	1310
8	.21	1.0	4.5	13	29	8.1	4.6	4.9	4150	1380	382	1530
9	.26	1.1	4.3	11	26	8.0	5.0	376	4460	1350	383	1590
10	.29	1.1	250	9.7	27	7.6	31	980	2350	1320	371	938
11	.33	1.0	415	9.2	23	7.3	10	326	2350	1280	360	779
12	.33	1.3	76	8.3	19	7.3	7.6	347	1670	1290	386	685
13	.36	1.7	39	8.0	17	7.0	5.6	204	1060	1390	383	612
14	.44	1.5	26	7.6	17	7.0	4.5	129	904	1410	365	582
15	.53	2.4	23	7.6	16	7.0	4.1	83	1080	1390	360	564
16	.52	2.5	20	8.4	15	6.8	4.9	55	1440	1370	351	553
17	.70	2.2	19	10	15	6.8	4.6	151	1570	1340	348	543
18	5.6	2.3	17	8.3	13	6.9	4.1	107	1590	1300	350	534
19	3180	2.6	16	7.6	11	6.6	4.9	58	1650	1250	350	428
20	198	3.3	15	7.6	11	6.1	6.2	51	1600	1230	347	318
21	123	1.2	14	7.6	9.6	5.9	4.5	84	1430	1120	338	276
22	129	1.2	14	6.9	9.1	6.0	3.9	70	1350	798	326	163
23	51	1.2	14	6.7	9.0	5.9	13	40	1360	729	326	111
24	21	1.2	12	6.7	9.0	5.9	34	25	1370	761	330	91
25	9.9	1.4	11	6.7	9.1	6.0	18	20	1340	730	256	78
26	6.9	1.6	11	6.4	9.4	6.0	11	17	1320	589	188	69
27	4.5	6.0	11	6.1	8.9	5.9	8.7	74	1360	480	181	63
28	3.3	3.6	10	6.3	8.3	6.1	7.7	131	1380	461	174	56
29	2.8	2.4	9.8	6.4	---	6.1	6.6	70	1400	440	171	51
30	2.5	1.9	9.6	6.2	---	6.1	5.7	44	1410	420	152	51
31	2.2	---	9.6	6.4	---	5.6	---	92	---	406	98	---
TOTAL	3745.74	55.7	1108.5	318.7	675.8	218.8	247.4	3809.6	52033	34794	9973	26055
MEAN	121	1.86	35.8	10.3	24.1	7.06	8.25	123	1734	1122	322	869
MAX	3180	6.0	415	31	94	9.7	34	980	4630	1670	392	4000
MIN	.21	1.0	1.5	6.1	6.7	5.6	3.9	4.7	168	406	98	51
AC-FT	7430	110	2200	632	1340	434	491	7560	103200	69010	19780	51680

CAL YR 1985 TOTAL 44952.38 MEAN 123 MAX 3180 MIN .03 AC-FT 89160
WTR YR 1986 TOTAL 133035.24 MEAN 364 MAX 4630 MIN .21 AC-FT 263900

08101000 COWHOUSE CREEK AT PIDCOKE, TX

LOCATION.--Lat 31°17'05", long 97°53'05", Coryell County, Hydrologic Unit 12070202, on left bank 125 ft downstream from bridge on Farm Road 116, 0.1 mi downstream from Beehouse Creek, 0.6 mi northeast of Pidcoke, 4.9 mi upstream from Table Rock Creek, and 34.6 mi upstream from mouth.

DRAINAGE AREA.--455 mi².

PERIOD OF RECORD.--October 1950 to current year.

REVISED RECORDS.--WSP 1712: 1955. WSP 1922: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 736.71 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges, Dec. 1-11, and Feb. 9-21. Records good except those for estimated daily discharges, which are poor. No known diversion above station. Several observations of water temperatures were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--36 years, 80.3 ft³/s (2.40 in/yr), 58,180 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 66,200 ft³/s Oct. 4, 1959 (gage height, 40.1 ft, from floodmark); from rating curve extended above 30,000 ft³/s on basis of slope-area measurement of 55,800 ft³/s; no flow at times. Maximum stage since at least 1882, that of Oct. 4, 1959, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 19	0900	*12,300	*21.47	June 6	1700	7,540	16.48
May 9	0230	9,200	18.31	June 7	0600	3,970	11.90
June 3	0630	7,520	16.45				

Minimum discharge, no flow Oct. 1-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	3.1	4.6	12	7.6	15	7.2	273	141	45	10	3.0
2	.00	4.4	4.4	12	7.6	14	7.1	38	692	41	10	92
3	.00	4.2	4.4	12	47	14	6.9	13	2250	36	37	134
4	.00	3.5	4.2	12	79	16	7.6	8.3	540	31	130	46
5	.00	3.1	3.9	10	61	15	7.2	6.1	943	29	24	19
6	.00	3.1	3.5	10	77	14	6.9	5.1	2180	25	12	116
7	.00	2.8	3.5	11	60	14	6.2	4.4	1710	25	9.6	345
8	.00	2.6	3.9	10	40	14	6.0	5.2	392	25	9.1	129
9	.00	3.0	3.5	10	37	14	5.9	2160	324	24	9.1	54
10	.00	2.8	145	10	33	14	8.0	762	191	24	9.1	29
11	.00	2.6	370	10	31	14	8.0	281	945	22	5.1	19
12	.00	2.6	108	10	29	14	8.1	134	393	22	3.5	14
13	.00	2.8	59	10	27	12	7.2	82	229	19	3.5	10
14	.00	2.8	40	10	25	12	6.6	67	184	16	3.5	8.6
15	.00	3.0	28	10	23	12	5.9	103	162	15	3.5	6.9
16	.00	3.0	29	13	21	12	5.3	58	182	14	3.4	6.0
17	.00	3.3	27	12	19	12	4.9	128	282	13	5.3	5.0
18	58	4.4	24	10	18	12	5.0	142	269	12	3.2	4.3
19	5380	4.4	22	10	17	10	5.8	77	212	12	2.1	3.8
20	316	3.5	20	10	15	9.7	7.3	60	163	12	1.8	3.5
21	72	3.5	19	10	14	9.1	6.1	48	131	12	1.6	3.3
22	25	3.5	18	9.1	14	9.6	5.7	38	113	13	1.6	3.0
23	17	3.9	17	8.7	14	9.1	5.1	33	102	12	1.8	2.8
24	12	3.9	16	8.7	14	8.3	4.9	31	92	10	2.5	2.5
25	9.1	3.9	15	8.7	14	8.3	4.3	105	84	10	2.5	2.3
26	7.2	4.2	14	8.3	13	8.3	3.7	132	76	10	2.2	2.2
27	5.7	6.0	14	7.6	13	8.3	3.4	71	68	10	1.9	1.9
28	4.6	4.9	14	7.6	13	8.1	3.5	48	61	10	1.8	2.0
29	4.2	4.9	14	7.6	---	7.9	3.5	34	56	10	1.8	2.0
30	4.4	4.9	13	7.6	---	7.3	4.5	32	47	10	1.6	1.8
31	3.5	---	13	7.6	---	7.1	---	60	---	10	1.5	---
TOTAL	5918.70	108.6	1074.9	305.5	783.2	355.1	177.8	5039.1	13214	579	315.6	1071.9
MEAN	191	3.62	34.7	9.85	28.0	11.5	5.93	163	440	18.7	10.2	35.7
MAX	5380	6.0	370	13	79	16	8.1	2160	2250	45	130	345
MIN	.00	2.6	3.5	7.6	7.6	7.1	3.4	4.4	47	10	1.5	1.8
CFSM	.42	.01	.08	.02	.06	.03	.01	.36	.97	.04	.02	.08
IN.	.48	.01	.09	.02	.06	.03	.01	.41	1.08	.05	.03	.09
AC-FT	11740	215	2130	606	1550	704	353	10000	26210	1150	626	2130

CAL YR 1985 TOTAL 23422.48 MEAN 64.2 MAX 7110 MIN .00 CFSM .14 IN. 1.91 AC-FT 46460
WTR YR 1986 TOTAL 28943.40 MEAN 79.3 MAX 5380 MIN .00 CFSM .17 IN. 2.37 AC-FT 57410

08102000 BELTON LAKE NEAR BELTON, TX

LOCATION.--Lat 31°06'22", long 97°28'28", Bell County, Hydrologic Unit 12070201, in intake structure at Belton Dam on Leon River, 1.6 mi upstream from bridge on State Highway 317, 3.5 mi north of Belton, 8.9 mi upstream from Nolan Creek, and 16.7 mi upstream from mouth.

DRAINAGE AREA.--3,531 mi².

PERIOD OF RECORD.--March 1954 to current year. Prior to October 1970, published as Belton Reservoir.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Feb. 20, 1955, nonrecording gage at present site and datum.

REMARKS.--The lake is formed by a rolled earthfill dam 5,524 ft long, including a 1,300-foot uncontrolled broad-crested spillway in a saddle near left end of dam and a 418-foot-long dike. Deliberate impoundment began Mar. 8, 1954, and the dam was completed in December 1954. The lake was built for flood control and conservation storage. The controlled outlet works consist of a 22.0-foot-diameter conduit that is controlled by three 7.0- by 22.0-foot broome-type gates. The service outlet consists of a 36- by 36-inch gated outlet that discharges into the flood-control conduit. Beginning January 1976, the capacity table is based on a sedimentation survey made in 1966. There are many small diversions upstream for irrigation, municipal supply, and oilfield operations. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see station 08100500. Figures given herein represent total contents. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam..	662.0	-
Design flood..	656.9	-
Crest of spillway...	631.0	1,086,000
Top of conservation pool..	594.0	442,000
Service outlet (invert)...	540.0	51,240
Lowest gated outlet (invert)......................................	483.0	0

COOPERATION.--Records furnished by the U.S. Army Corps of Engineers and reviewed by the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 870,300 acre-ft June 6, 1957 (elevation, 620.45 ft); minimum since initial filling, 113,400 acre-ft Dec. 16, 1956 (elevation, 553.06 ft).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 575,100 acre-ft June 20 at 1600 hours (elevation, 603.90 ft); minimum daily, 411,000 acre-ft Oct. 9 at 2400 hours (elevation, 591.44 ft).

Capacity table (elevation, in feet, and total contents, in acre-feet)

591.0	405,800	597.0	480,400	603.0	562,200
594.0	442,000	600.0	520,500	604.0	576,500

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	413500	445500	453000	483400	445600	446500	441600	454300	458600	561500	469400	452300
2	413200	444800	451900	482900	445100	446100	441500	455000	461200	560900	466700	455200
3	412900	444200	450400	482100	479700	445800	441600	455400	476800	559400	463900	457000
4	412400	443200	449400	481100	485000	445500	441700	455400	482300	557700	461700	459900
5	412200	442700	447900	480400	487600	445100	441700	455300	488700	556100	459400	464000
6	411700	442600	446500	479300	489200	444600	441700	454700	496900	555100	458100	486400
7	411300	442200	446200	478600	490800	444200	441900	453900	505600	553700	453800	508400
8	411000	441700	445700	477500	491600	444100	442000	454800	513000	552200	451800	516700
9	411000	441900	445500	476700	492800	444200	442400	462200	520200	550700	450100	517500
10	411600	442600	452000	475900	492200	444500	442600	473200	528200	548100	448700	516500
11	411500	442200	478000	475000	488800	444600	442900	477200	546000	545300	447700	513700
12	411200	442200	483000	474100	492000	444500	443100	477100	555100	542400	446100	510700
13	411100	442100	484400	473200	481800	444300	443200	473700	558700	539500	446100	507600
14	411500	442100	485400	472300	478900	444100	442900	470600	560500	536600	446000	504400
15	411600	442400	486400	471300	475000	443800	442600	468100	561800	533300	445800	501000
16	411300	442600	487300	470700	471900	443700	442400	466700	565200	529400	446000	497400
17	411200	442600	488100	470200	468600	443700	442600	469300	570900	526800	446000	494000
18	412300	442900	488900	469500	465300	444000	442200	469900	574200	523500	446000	490100
19	451400	443200	489200	468500	461700	443700	442600	469100	574600	520000	445700	485900
20	467100	443000	489900	467600	458500	443500	442500	468800	575100	516700	446000	481500
21	469500	442600	490100	466800	455900	443000	442400	468100	575100	513200	446000	476700
22	469000	442600	490800	466000	454200	442600	442000	468400	575100	510200	446000	471900
23	468000	442600	490800	463900	452400	442400	441600	467300	574500	505600	446600	467800
24	466400	445300	490400	461700	450500	442200	441400	466600	572900	501300	446700	463500
25	463500	445500	489100	459400	448900	442200	441400	465100	571500	497400	446700	459400
26	461300	446300	488400	456800	448200	442200	441200	463500	570300	493700	446700	455600
27	458500	451400	487500	454700	447900	442200	441100	461900	568800	489900	447100	452300
28	456300	452300	486700	452500	447100	442100	441100	460100	567200	485800	449200	449100
29	453500	452500	486000	449900	---	442000	441200	458400	565600	482100	449000	446700
30	450100	452600	485200	447100	---	441600	441200	457100	564200	477100	448900	446000
31	447100	---	484300	446000	---	441700	---	457700	---	472600	448900	---
MAX	469500	452600	490800	483400	492800	446500	443200	477200	575100	561500	469400	517500
MIN	411000	441700	445500	446000	445100	441600	441100	453900	458600	472600	445700	446000
(†)	594.11	594.85	597.30	594.32	594.41	593.98	593.94	595.25	603.14	596.41	594.55	594.32
(φ)	+33200	+5500	+31700	-38300	+1100	-5400	-500	+16500	+106500	-91600	-23700	-2900

CAL YR 1985 MAX 490800 MIN 364900 (φ) +121300
WTR YR 1986 MAX 575100 MIN 411000 (φ) +32100

(†) Elevation, in feet, at end of month.
(φ) Change in contents, in acre-feet.

08102500 LEON RIVER NEAR BELTON, TX

LOCATION.--Lat 31°04'12", long 97°26'28", Bell County, Hydrologic Unit 12070201, on left bank 1,400 ft upstream from bridge on Farm Road 817, 2,000 ft upstream from concrete dam, 1.0 mi upstream from bridge on Interstate Highway 35 and U.S. Highway 81, 1.6 mi northeast of Belton, 3.2 mi downstream from Belton Dam, 5.2 mi upstream from Nolan Creek, and 13.1 mi upstream from mouth.

DRAINAGE AREA.--3,542 mi².

PERIOD OF RECORD.--October 1923 to current year.

REVISED RECORDS.--WSP 1442: 1925(M), 1935(M), 1936, 1938(M), 1941-42(M), 1944-45(M). WSP 1712: 1937(M). WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 476.68 ft above National Geodetic Vertical Datum of 1929. Prior to May 21, 1931, nonrecording gage.

REMARKS.--Estimated daily discharges: Mar. 10-20. Records good except those for estimated daily discharges, which are fair. The city of Temple diverts water from the pool at gage and returns sewage effluent to Little Elm Creek downstream from station. The Brazos River Authority returns sewage effluent to the Leon River downstream from station for their Temple-Belton plant. Flow regulated by Belton Lake (station 08102000) since Mar. 8, 1954. Gage-height telemeter at station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--30 years (water years 1924-53) unregulated, 659 ft³/s (477,400 acre-ft/yr); 33 years (water years 1954-86) regulated, 486 ft³/s (352,100 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 56,500 ft³/s Apr. 22, 1945 (gage height, 24.41 ft); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in December 1913 reached a stage of 25 ft, and flood in September 1921 reached a stage of 21 ft, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,270 ft³/s Feb. 3 at 1300 hours (gage height, 6.65 ft); minimum daily, 2.4 ft³/s Oct. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	1070	36	570	354	331	22	22	1180	2040	2090	46
2	3.6	464	273	570	354	324	21	14	1180	2040	1620	53
3	3.9	457	799	567	787	329	21	12	1220	2040	1620	416
4	2.4	254	790	568	73	318	23	13	1190	2040	1620	741
5	3.5	98	783	565	58	318	19	102	1200	2040	1620	747
6	3.8	98	632	573	60	318	17	313	1200	2040	1620	443
7	4.5	96	281	572	60	228	17	316	1210	2030	1620	31
8	3.4	71	279	568	63	131	16	324	1210	2030	1370	492
9	2.8	50	277	568	67	127	16	323	961	2020	1000	1490
10	3.0	48	277	565	803	127	24	339	682	2140	1010	1960
11	4.2	49	224	565	2180	131	21	334	709	2370	1010	2310
12	4.0	50	69	565	2180	131	19	910	698	2490	908	2310
13	3.9	46	60	565	2180	135	19	2240	700	2490	429	2320
14	3.8	39	58	565	2170	135	22	2240	701	2660	236	2310
15	5.7	39	64	566	2170	139	21	1850	702	2750	235	2320
16	5.0	35	56	565	2170	139	14	1230	703	2750	235	2320
17	4.6	38	23	566	2160	143	12	986	492	2740	239	2320
18	6.4	37	20	565	2160	143	14	975	1070	2740	236	2310
19	56	34	17	565	2160	143	14	971	1790	2740	235	2580
20	11	34	16	565	2160	148	13	607	1790	2730	232	2830
21	6.4	34	18	566	1630	148	14	305	1790	2730	223	2840
22	345	32	18	567	1070	148	12	263	1790	2730	197	2660
23	636	32	228	951	1070	139	11	756	1920	2730	182	2230
24	1090	42	595	1350	1070	103	7.6	1160	2050	2730	187	2240
25	1440	31	583	1340	1060	54	5.8	1180	2050	2550	181	2240
26	1440	30	577	1340	670	54	5.8	1170	2060	2420	177	2030
27	1440	60	571	1340	326	50	7.3	1180	2050	2420	110	1750
28	1430	37	565	1340	330	44	8.2	1170	2050	2420	51	1760
29	1420	37	565	1340	---	39	7.2	1160	2040	2420	21	1250
30	1410	35	565	1340	---	39	9.7	1160	2050	2410	18	359
31	1400	---	565	778	---	30	---	1180	---	2410	22	---
TOTAL	12198.5	3477	9884	23590	31595	4786	453.6	24805	40438	74890	20554	49708
MEAN	393	116	319	761	1128	154	15.1	800	1348	2416	663	1657
MAX	1440	1070	799	1350	2180	331	24	2240	2060	2750	2090	2840
MIN	2.4	30	16	565	58	30	5.8	12	492	2020	18	31
AC-FT	24200	6900	19600	46790	62670	9490	900	49200	80210	148500	40770	98600

CAL YR 1985 TOTAL 73533.5 MEAN 201 MAX 1530 MIN 1.5 AC-FT 145900
WTR YR 1986 TOTAL 296379.1 MEAN 812 MAX 2840 MIN 2.4 AC-FT 587900

08103800 LAMPASAS RIVER NEAR KEMPNER, TX

LOCATION.--Lat 31°04'54", long 98°00'59", Lampasas County, Hydrologic Unit 12070203, on left bank 800 ft upstream from centerline of U.S. Highway 190, 0.6 mi upstream from Mesquite Creek, 0.8 mi west of Kempner, 0.9 mi downstream from Sulphur Creek, and 72.3 mi upstream from mouth.

DRAINAGE AREA.--818 mi².

PERIOD OF RECORD.--October 1962 to current year.
Water-quality records.--Chemical and biochemical analyses: October 1980 to September 1982.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 828.38 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 4, 1967, at site 800 ft downstream at present datum.

REMARKS.--No estimated daily discharges. Records good. At times, flow is affected by discharge from the flood-detention pools of 13 floodwater-retarding structures with a combined detention capacity of 38,570 acre-ft. These structures control runoff from 131 mi² in the Sulphur and Bennett Creeks drainage basins. There are many small diversions above station for irrigation and municipal supply. The city of Lampasas diverts water upstream from this station and returns sewage effluent to Sulfur Creek, upstream from this station. Gage-height telemeter at station.

AVERAGE DISCHARGE.--24 years, 118 ft³/s (85,490 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 71,000 ft³/s May 16, 1965 (gage height, 32.98 ft); minimum daily, 1.4 ft³/s July 17, 1971.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1871, occurred in September 1873 (stage about 45 ft). Flood of May 13, 1957, reached a stage of 37 ft, and flood of Oct. 4, 1959, reached a stage of 34 ft, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Oct. 19	0330	7,460	10.51	June 3	1830	10,700	12.14
Oct. 19	1130	25,100	19.70	June 5	2030	4,180	8.35
June 3	0930	*30,200	*21.97	June 6	2330	8,990	11.30

Minimum daily discharge, 13 ft³/s Oct. 1-4, 6-8, and 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	18	16	24	27	22	27	21	127	89	17	20
2	13	20	14	25	27	24	27	22	613	83	16	27
3	13	17	14	25	93	26	26	20	10300	77	16	32
4	13	16	15	26	118	26	27	19	1930	77	18	25
5	14	16	15	24	71	26	26	18	1280	63	18	21
6	13	15	15	25	111	27	26	18	2340	58	18	642
7	13	16	15	26	65	26	24	18	2590	55	18	310
8	13	16	15	25	50	26	22	18	729	51	18	705
9	14	16	16	26	46	27	22	673	475	48	16	250
10	14	16	151	25	44	27	22	449	382	45	15	91
11	15	14	384	25	42	30	24	115	1310	37	20	57
12	14	14	73	25	39	27	24	67	887	35	18	53
13	13	14	48	24	37	24	23	50	446	32	18	168
14	14	14	39	23	37	24	21	42	350	31	17	67
15	24	15	32	24	33	26	20	37	291	28	17	54
16	15	17	30	25	35	24	20	38	286	26	16	46
17	14	16	30	27	34	22	20	41	1240	25	16	43
18	98	16	27	25	32	22	21	61	481	23	17	38
19	11000	15	26	25	32	22	22	46	513	21	16	34
20	1290	14	27	25	30	20	22	37	292	20	15	33
21	593	14	27	25	27	20	22	33	241	20	15	33
22	294	15	27	25	26	22	20	30	216	29	14	32
23	176	15	27	24	29	22	21	25	192	21	15	33
24	107	16	26	24	28	24	20	25	174	20	16	32
25	66	16	24	24	28	24	20	495	163	19	16	29
26	48	16	25	24	26	24	20	190	155	19	15	33
27	36	25	26	23	26	24	20	70	143	19	15	30
28	25	20	27	25	25	26	19	48	130	19	17	26
29	20	16	26	27	---	24	21	38	115	19	18	26
30	19	16	26	26	---	24	22	48	101	18	16	27
31	18	---	26	27	---	27	---	307	---	17	16	---
TOTAL	14032	484	1289	773	1218	759	671	3119	28492	1144	513	3017
MEAN	453	16.1	41.6	24.9	43.5	24.5	22.4	101	950	36.9	16.5	101
MAX	11000	25	384	27	118	30	27	673	10300	89	20	705
MIN	13	14	14	23	25	20	19	18	101	17	14	20
AC-FT	27830	960	2560	1530	2420	1510	1330	6190	56510	2270	1020	5980

CAL YR 1985 TOTAL 44762.7 MEAN 123 MAX 11000 MIN 6.5 AC-FT 88790
WTR YR 1986 TOTAL 55511 MEAN 152 MAX 11000 MIN 13 AC-FT 110100

08103900 SOUTH FORK ROCKY CREEK NEAR BRIGGS, TX
(Hydrologic bench-mark station)

LOCATION.--Lat 30°54'41", long 98°02'12", Burnet County, Hydrologic Unit 12070203, at upstream side of bridge on Ranch Road 963, 6 mi above confluence with North Fork Rocky Creek, 7 mi west of Briggs, and 12.9 mi above mouth.

DRAINAGE AREA.--33.3 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1963 to current year.

REVISED RECORDS.--WRD TX-74-1: 1972-73(P). WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder, concrete control, and crest-stage gages. Datum of gage is 955.8 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Recording rain gage at station.

AVERAGE DISCHARGE.--23 years, 10.5 ft³/s (4.28 in/yr), 7,610 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,200 ft³/s June 19, 1976 (gage height, 22.70 ft), from rating curve extended above 1,000 ft³/s on basis of slope-area measurements of 3,580 and 8,510 ft³/s and conveyance-slope study; no flow for many days each year for 1963-74 and 1976-85.

Maximum stage since at least 1904, 22.70 ft June 19, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
June 3	0530	3,270	9.13	June 11	0830	1,050	5.30
June 3	2000	1,650	6.51	June 16	2245	1,040	5.28
June 5	2245	*5,880	*11.79				

Minimum discharge, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	2.5	1.3	2.4	1.0	.44	1.4	9.8	.29	.00
2	.00	.00	.00	2.4	1.4	2.4	1.0	.46	.93	9.0	.20	.00
3	.00	.00	.00	2.4	11	2.3	1.0	.43	517	8.3	.20	.21
4	.00	.00	.00	2.2	11	2.4	1.2	.31	74	7.8	.26	.00
5	.00	.00	.00	2.1	6.3	2.3	1.2	.31	374	6.4	.75	.00
6	.00	.00	.00	1.9	6.8	2.3	1.0	.26	161	5.5	.64	.05
7	.00	.00	.00	2.2	5.6	2.2	1.1	.23	42	5.3	.71	.46
8	.00	.00	.00	3.3	4.9	2.2	.98	.23	32	4.9	.19	.79
9	.00	.00	.00	2.9	5.3	2.2	.86	.35	27	4.4	.13	.26
10	.00	.00	.07	2.6	5.6	2.1	.97	4.9	29	3.9	.05	.21
11	.00	.00	67	2.5	5.1	2.1	1.0	2.6	223	3.5	.01	.00
12	.00	.00	7.8	2.2	4.8	2.2	1.0	1.0	60	3.2	.00	.00
13	.00	.00	5.1	2.1	4.8	1.9	.91	.62	41	2.8	.00	.00
14	.00	.00	3.7	2.1	4.9	1.9	.74	.45	34	2.7	.00	.00
15	.00	.00	3.4	2.0	4.3	1.9	.61	.38	30	2.4	.00	.00
16	.00	.00	3.5	2.1	4.5	1.7	.58	.35	84	2.2	.00	.00
17	.00	.00	3.3	2.1	4.5	1.7	.58	.86	115	2.0	.00	.00
18	.00	.00	3.0	2.2	3.9	1.8	.66	1.1	80	1.9	.00	.00
19	9.7	.00	2.7	1.9	3.7	1.6	.78	.67	48	1.7	.00	.00
20	2.3	.00	2.6	1.8	3.6	1.5	.83	.44	34	1.6	.00	.00
21	.65	.00	2.6	1.7	3.1	1.5	.57	.29	30	1.4	.00	.00
22	.36	.00	3.1	1.6	2.9	1.4	.47	.22	27	1.2	.00	.00
23	.08	.00	2.8	1.5	3.0	1.4	.45	.17	24	1.1	.00	.00
24	.00	.00	3.8	1.5	2.9	1.3	.36	.13	22	1.1	.00	.00
25	.00	.00	3.7	1.6	2.9	1.3	.35	.56	20	1.0	.00	.00
26	.00	.00	3.4	1.5	2.9	1.2	.34	.26	19	.87	.00	.00
27	.00	.28	2.5	1.3	2.8	1.2	.32	.22	16	.82	.00	.00
28	.00	.14	2.5	1.3	2.5	1.1	.34	.17	14	.71	.00	.00
29	.00	.00	2.3	1.4	---	1.1	.36	.09	13	.52	.00	.00
30	.00	.00	2.5	1.3	---	1.1	.43	.01	11	.47	.00	.00
31	.00	---	2.5	1.3	---	1.0	---	2.4	---	.39	.00	---
TOTAL	13.09	.42	133.87	61.5	126.3	54.7	21.99	20.91	2203.33	98.88	3.43	1.98
MEAN	.42	.01	4.32	1.98	4.51	1.76	.73	.67	73.4	3.19	.11	.07
MAX	9.7	.28	67	3.3	11	2.4	1.2	4.9	517	9.8	.75	.79
MIN	.00	.00	.00	1.3	1.3	1.0	.32	.01	.93	.39	.00	.00
CFSM	.01	.00	.13	.06	.14	.05	.02	.02	2.20	.10	.00	.00
IN.	.01	.00	.15	.07	.14	.06	.02	.02	2.46	.11	.00	.00
AC-FT	26	.8	266	122	251	108	44	41	4370	196	6.8	3.9

CAL YR 1985 TOTAL 2857.53 MEAN 7.83 MAX 141 MIN .00 CFSM .24 IN. 3.19 AC-FT 5670
WTR YR 1986 TOTAL 2740.40 MEAN 7.51 MAX 517 MIN .00 CFSM .23 IN. 3.06 AC-FT 5440

08103900 SOUTH FORK ROCKY CREEK NEAR BRIGGS, TX--Continued
(Hydrologic bench-mark station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: October 1961 to January 1964. Chemical and biochemical analyses: January 1968 to current year. Pesticide analyses: July 1971 to July 1982. Sediment analyses: May to June 1963, February 1968 to current year. Radiochemical analyses: January 1968 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT 22...	1100	0.31	470	7.80	20.0	2.0	6.5	73	37	21	150
MAR 17...	1315	1.7	515	8.10	19.0	0.4	11.2	125	30	41	240
JUL 08...	1240	4.8	512	8.00	28.5	1.2	8.1	--	45	140	250
SEP 08...	1150	0.58	482	8.00	23.0	0.3	7.9	94	K80	440	200

DATE	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT 22...	15	37	14	33	1	3.7	136	24	49	0.8	9.1
MAR 17...	31	55	25	17	0.5	1.7	212	23	31	0.5	7.9
JUL 08...	18	56	26	14	0.4	1.6	229	20	19	0.5	11
SEP 08...	31	47	21	22	0.7	1.9	173	21	39	0.5	10

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)
OCT 22...	253	250	0.63	0.01	0.64	0.03	0.03	0.37	0.4	<0.01	<0.01
MAR 17...	295	290	--	<0.01	<0.10	<0.01	<0.01	--	0.3	<0.01	<0.01
JUL 08...	280	290	--	<0.01	0.10	0.02	<0.01	--	<0.2	<0.01	<0.01
SEP 08...	310	260	--	<0.01	0.10	0.01	0.02	--	<0.2	0.01	0.02

DATE	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)
OCT 22...	0.01	0.03	4	0.0	6	10	<1	36	<0.5	<1	<1
MAR 17...	<0.01	--	8	0.04	71	10	<1	55	<0.5	<1	<1
JUL 08...	<0.01	--	12	0.16	59	--	--	--	--	--	--
SEP 08...	<0.01	--	5	0.01	83	--	--	--	--	--	--

DATE	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)
OCT 22...	<3	<1	<3	3	19	<1	<0.1	<10	3	<1	1
MAR 17...	<3	<1	<3	<1	15	1	<0.1	<10	<1	<1	<1
JUL 08...	--	--	--	--	--	--	--	--	--	--	--
SEP 08...	--	--	--	--	--	--	--	--	--	--	--

08103900 SOUTH FORK ROCKY CREEK NEAR BRIGGS, TX--Continued
(Hydrologic bench-mark station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)
OCT										
22...	1100	<6	10	<1.5	<0.5	5.4	<0.4	4.2	<0.4	0.08
MAR										
17...	2100	<6	<3	--	--	--	--	--	--	--
JUL										
08...	--	--	--	--	--	--	--	--	--	--
SEP										
08...	--	--	--	--	--	--	--	--	--	--

08104050 STILLHOUSE HOLLOW LAKE NEAR BELTON, TX

LOCATION.--Lat 31°01'20", long 97°31'57", Bell County, Hydrologic Unit 12070203, in intake structure at Stillhouse Hollow Dam on Lampasas River, 5 mi southwest of Belton, and 16.0 mi upstream from mouth.

DRAINAGE AREA.--1,313 mi².

PERIOD OF RECORD.--September 1966 to current year. Prior to October 1970, published as Stillhouse Hollow Reservoir.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--The lake is formed by a rolled earthfill dam 15,624 ft long, including a 1,650-foot spillway and 5,894-foot dike. The lake was operated as a temporary detention basin from Sept. 2, 1966, to Feb. 19, 1968. Deliberate impoundment began Feb. 19, 1968. The lake was built for flood control and water conservation. The spillway is an uncontrolled broad-crested weir 1,650 ft long located near right end of dam. The flood-control outlet consists of a 12.0-foot-diameter conduit controlled by two 5.67- by 12.0-foot slide gates at an invert elevation of 515.0 ft. The capacity curve is based on maps prepared by Brazos River Authority in 1937 and supplemented by contour maps prepared by the U.S. Army Corps of Engineers in 1958. There are many small diversions upstream for irrigation, municipal supply and oilfield operation. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see station 08103800. Gage-height telemeter at station. Figures given herein represent total contents. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	698.0	-
Design flood	693.2	1,013,300
Crest of spillway	666.0	630,400
Top of conservation pool	622.0	235,700
Lowest gated outlet (invert)	515.0	775

COOPERATION.--Records furnished by the U.S. Army Corps of Engineers and reviewed by the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 347,100 acre-ft May 2, 3, 1977 (elevation, 637.26 ft); minimum since conservation storage was reached on Apr. 12, 1969, 178,300 acre-ft Oct. 5, 1984 (elevation, 612.18 ft).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 277,100 acre-ft June 8 at 2400 hours (elevation, 628.10 ft); minimum daily, 226,100 acre-ft Oct. 8 at 2400 hours (elevation, 620.48 ft).

Capacity table (elevation, in feet, and total contents, in acre-feet)

620.0	223,100	624.0	248,800	628.0	276,400
622.0	235,700	626.0	262,400	630.0	290,800

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	226900	240600	241000	254600	236300	243600	238100	236900	239100	259800	237000	235800
2	226800	239900	240900	254200	236500	242400	238100	236900	239800	258600	236800	236500
3	226700	239200	241100	253500	256500	241300	237900	236900	255300	257200	236600	236500
4	226600	238300	241200	252900	258600	240000	237500	236900	266300	255700	236400	236500
5	226500	237500	241200	252100	260100	238700	237200	236900	268100	254400	236200	236600
6	226500	236700	241300	251600	261200	237500	236900	236900	272000	252900	235900	241200
7	226100	236300	241500	251100	262100	236900	236500	236900	277100	251500	235600	242300
8	226100	236300	241500	250500	262800	236800	236300	236900	277000	250100	235500	244200
9	226100	236400	241500	250000	263700	236400	236200	237500	275500	248700	235400	244400
10	226500	236500	242000	249300	263800	236300	236300	239200	273000	247700	235300	244000
11	226500	236700	252900	248700	262900	236200	236500	239700	275200	246600	235200	243400
12	226400	236800	254500	248100	262000	236200	236500	239900	275200	245700	235100	242600
13	226400	236900	255300	247600	261100	236300	236600	239800	273400	245000	235000	241900
14	226800	236900	255900	246900	260300	236500	236500	239500	271100	244600	234800	241500
15	226900	237100	256600	246300	259300	236600	236500	239000	268500	244600	234700	240900
16	226800	237400	257100	245700	258500	236700	236500	238600	267100	244600	234600	240100
17	227000	237500	257600	245200	257500	236900	236500	239000	269200	244400	234500	239400
18	227100	237600	258100	244600	256500	237200	236600	238300	270200	244200	234400	238500
19	245100	237400	258500	244100	255400	237200	236700	238000	270900	243800	234300	238000
20	250900	236800	258800	243500	254300	237200	236700	237400	270700	243300	234200	237600
21	252700	236300	259200	242900	253100	237200	236600	237000	270100	242800	234100	237200
22	253100	236200	259500	242200	251900	237300	236500	236500	269500	242300	234000	236800
23	252900	236300	259700	241100	250800	237400	236500	236300	268700	241700	233900	236300
24	251900	237200	259000	239600	249700	237500	236500	236700	267800	241200	233800	236000
25	250700	237500	258500	238200	248500	237600	236400	236800	266900	240800	233700	236000
26	249500	238000	257800	237100	247500	237600	236300	237500	265900	240200	233600	236000
27	247900	240000	257400	236100	246300	237800	236500	237800	264800	239600	233600	235900
28	246400	240500	257000	235900	244800	237800	236400	237900	263600	239100	234900	236000
29	244800	240800	256300	236000	---	238000	236500	238000	262300	238500	234900	235900
30	243200	241000	255700	236000	---	238000	236500	238000	261200	238000	234600	235800
31	241700	---	254800	236300	---	238000	---	238300	---	237400	234400	---
MAX	253100	241000	259700	254600	263800	243600	238100	239900	277100	259800	237000	244400
MIN	226100	236200	240900	235900	236300	236200	236200	236300	239100	237400	233600	235800
(†)	622.92	622.82	624.90	622.10	623.40	622.36	622.12	622.40	625.83	622.26	621.80	622.02
(‡)	+14500	-700	+13800	-18500	+8500	-6800	-1500	+1800	+22900	-23800	-3000	+1400

CAL YR 1985 MAX 259700 MIN 193500 (‡) +62200
WTR YR 1986 MAX 277100 MIN 226100 (‡) +8600

(†) Elevation, in feet, at end of month.
(‡) Change in contents, in acre-feet.

08104100 LAMPASAS RIVER NEAR BELTON, TX

LOCATION.--Lat 31°00'06", long 97°29'32", Bell County, Hydrologic Unit 12070203, on left bank 22 ft upstream from upstream bridge of two bridges on Interstate Highway 35 and U.S. Highway 81, 3.5 mi downstream from Stillhouse Hollow Dam, 4.1 mi southwest of Belton, and 12.7 mi upstream from mouth.

DRAINAGE AREA.--1,321 mi^2.

PERIOD OF RECORD.--February 1963 to current year.
Water-quality records.--Chemical and biochemical analyses: October 1980 to September 1982.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 476.58 ft above National Geodetic Vertical Datum of 1929 (from Texas Department of Highways and Public Transportation levels, run from a Santa Fe Railroad bench mark).

REMARKS.--No estimated daily discharges. Records good. Many small diversions above station for irrigation and for municipal supply. Since Sept. 2, 1966, flow largely regulated by Stillhouse Hollow Lake (station 08104050). Gage-height telemeter at station.

AVERAGE DISCHARGE.--3 years (water year 1964-66) unregulated, 368 ft^3/s (266,600 acre-ft/yr); 20 years (water years 1967-86) regulated, 212 ft^3/s (153,600 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 77,900 ft^3/s May 17, 1965 (gage height, 43.58 ft); no flow Aug. 9, 10, 12-15, and Sept. 5, 6, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1877, 45 ft September 1921, from information by local residents. Flood of May 1957 reached a stage of 44.4 ft (discharge, 83,500 ft^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,360 ft^3/s Feb. 3 at 1330 hours (gage height, 13.71 ft); minimum daily, 4.9 ft^3/s June 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	696	9.8	423	19	781	11	17	5.7	829	163	21
2	6.1	410	10	423	18	785	67	14	4.9	828	58	21
3	6.1	407	9.9	424	497	784	239	14	8.8	825	58	18
4	6.1	407	9.6	425	47	786	239	15	8.5	823	58	15
5	6.0	407	9.4	423	48	794	239	15	274	822	58	25
6	6.3	407	9.3	423	48	795	237	15	744	821	58	51
7	6.3	194	9.7	420	47	523	237	13	1230	820	39	19
8	5.9	9.5	9.8	423	48	213	237	13	1240	818	12	166
9	6.2	9.8	62	427	51	214	131	14	1570	819	12	429
10	6.3	11	309	430	306	214	16	20	1960	613	12	431
11	7.4	12	268	433	806	214	14	14	1970	422	11	432
12	6.1	11	14	434	800	111	14	13	1950	421	12	431
13	5.7	11	13	435	799	16	13	134	1940	420	12	431
14	7.4	11	13	436	800	14	13	231	1940	201	11	434
15	10	13	13	438	798	13	14	229	1930	17	11	433
16	6.8	11	14	437	799	14	16	228	1930	16	12	432
17	6.6	11	14	440	799	13	15	232	1470	14	12	433
18	7.8	10	14	440	796	13	16	229	829	63	12	430
19	30	118	15	442	796	13	14	230	829	220	12	333
20	12	222	15	445	794	13	15	229	831	222	13	232
21	12	221	15	447	788	13	14	230	832	221	13	232
22	218	103	16	446	785	13	14	231	833	220	13	231
23	458	6.4	146	699	785	13	14	120	832	220	13	231
24	683	11	430	873	784	13	14	10	832	218	13	127
25	872	7.6	427	869	784	12	14	14	831	219	13	18
26	867	7.3	427	864	785	13	14	9.8	832	219	13	18
27	864	17	427	531	782	12	14	9.1	831	218	13	17
28	864	9.0	426	130	779	12	13	7.1	834	217	23	16
29	863	8.8	424	21	---	12	13	6.5	832	217	15	16
30	861	9.6	426	19	---	12	13	5.9	830	217	13	16
31	858	---	425	19	---	12	---	5.6	---	217	14	---
TOTAL	7581.4	3789.0	4430.5	13539	15388	6460	1934	2568.0	30983.9	12437	802	6139
MEAN	245	126	143	437	550	208	64.5	82.8	1033	401	25.9	205
MAX	872	696	430	873	806	795	239	232	1970	829	163	434
MIN	5.7	6.4	9.3	19	18	12	11	5.6	4.9	14	11	15
AC-FT	15040	7520	8790	26850	30520	12810	3840	5090	61460	24670	1590	12180

CAL YR 1985 TOTAL 51581.6 MEAN 141 MAX 1200 MIN 2.8 AC-FT 102300
WTR YR 1986 TOTAL 106051.8 MEAN 291 MAX 1970 MIN 4.9 AC-FT 210400

08104310 SALADO CREEK BELOW SALADO SPRINGS AT SALADO, TX

LOCATION.--Lat 30°57'07", long 92°21'26", Bell County, Hydrologic Unit 12070205, on right bank downstream from low-water crossing in the Mill Creek Country Club and subdivision at Salado.

PERIOD OF RECORD.--October 1984 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 545 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharge: Feb. 2 to Mar. 3. Records good except for estimated daily discharges, which are poor. Discharges are not published above 100 ft³/s. No known regulation above station. Several observations of water temperature made during the year.

EXTREMES FOR CURRENT YEAR.--Maximum gage height and discharge not determined; minimum daily discharge, 14 ft³/s on Oct. 6, 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	35	77	82	51	71	49	41	37	53	24	51
2	16	42	65	84	51	69	50	41	34	51	24	39
3	15	36	62	88	---	68	49	38	49	48	23	35
4	15	35	---	84	---	67	48	36	33	47	23	33
5	16	35	60	84	---	66	48	35	34	45	24	33
6	14	35	56	83	---	69	47	35	34	43	24	---
7	15	35	55	82	---	68	47	35	---	43	23	47
8	14	34	55	83	---	70	46	35	---	44	23	40
9	14	34	54	85	---	70	47	36	49	42	23	38
10	16	33	---	79	---	71	48	50	43	42	23	37
11	19	36	---	77	---	67	48	44	---	40	24	38
12	17	35	---	75	---	69	47	37	---	40	23	38
13	16	35	---	68	---	65	46	34	72	39	23	40
14	17	34	---	69	---	64	45	33	61	37	24	43
15	44	39	---	67	---	64	44	33	55	36	23	42
16	25	39	---	63	100	62	42	33	---	35	23	42
17	20	41	---	61	98	60	42	36	---	35	23	42
18	23	41	---	58	94	60	43	38	88	33	22	41
19	---	41	---	55	92	57	44	36	76	32	22	41
20	---	40	---	54	90	55	44	34	72	32	22	42
21	46	40	98	53	85	54	42	32	68	30	21	44
22	44	39	96	51	82	54	39	31	69	30	22	43
23	45	40	92	51	80	53	39	31	72	29	21	43
24	41	---	85	51	78	53	39	31	74	30	22	42
25	38	---	81	52	77	52	39	36	74	30	22	42
26	36	65	86	51	76	52	39	34	71	30	21	42
27	35	---	85	51	75	51	39	33	64	27	21	41
28	34	---	84	51	74	51	39	32	61	27	24	40
29	34	---	81	51	---	50	38	32	57	27	21	41
30	34	---	88	51	---	50	38	32	54	25	20	41
31	33	---	88	51	---	49	---	33	---	24	20	---
TOTAL	---	---	---	2045	---	1881	1315	1097	---	1126	698	---
MEAN	---	---	---	66.0	---	60.7	43.8	35.4	---	36.3	22.5	---
MAX	---	---	---	88	---	71	50	50	---	53	24	---
MIN	---	---	---	51	---	49	38	31	---	24	20	---
AC-FT	---	---	---	4060	---	3730	2610	2180	---	2230	1380	---

CAL YR 1985 TOTAL - MEAN - MAX - MIN - AC-FT -
WTR YR 1986 TOTAL - MEAN - MAX - MIN - AC-FT -

08104500 LITTLE RIVER NEAR LITTLE RIVER, TX

LOCATION.--Lat 30°57'59", long 97°20'45", Bell County, Hydrologic Unit 12070204, on right bank 25 ft downstream from State Highway 95, 2.4 mi southeast of Little River, 5 mi downstream from confluence of Leon and Lampasas Rivers, and 95.8 mi upstream from mouth.

DRAINAGE AREA.--5,228 mi².

PERIOD OF RECORD.--October 1923 to May 1929, August 1962 to current year.
Water-quality records.--Chemical analyses: October 1964 to September 1982.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 400.11 ft above National Geodetic Vertical Datum of 1929. From Oct. 5, 1923, to May 27, 1929, nonrecording gage at railroad bridge 0.5 mi upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Many small diversions upstream for irrigation and municipal supply affect very low flows. Flow regulated by Belton Lake (station 08102000) on Leon River beginning Mar. 8, 1954, and by Stillhouse Hollow Lake (station 08104050) on the Lampasas River beginning Sept. 2, 1966. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see station 08102600. Several observations of water temperature were made during the year. Satellite telemeter at station.

AVERAGE DISCHARGE.--5 years (water years 1924-28) unregulated, 709 ft³/s (513,700 acre-ft/yr); 24 years (water years 1963-86) regulated, 827 ft³/s (599,200 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 79,600 ft³/s May 17, 1965 (gage height, 42.85 ft); minimum daily, 8.2 ft³/s Aug. 6, 19, 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1900, 46.8 ft in September 1921, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21,600 ft³/s Feb. 3 at 2300 hours (gage height, 39.25 ft); minimum daily, 52 ft³/s Oct. 6, 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77	2480	423	1230	461	1290	146	829	1190	3150	2710	540
2	66	1270	360	1220	452	1290	146	255	1200	3130	1780	323
3	60	1170	1130	1210	7530	1280	261	177	1480	3120	1750	448
4	57	1030	1140	1210	9400	1280	327	147	2380	3110	1750	808
5	53	680	1110	1180	1450	1270	326	148	1510	3100	1750	833
6	52	673	1070	1180	1130	1270	323	388	1930	3100	1750	3110
7	52	618	565	1190	904	1150	326	395	2450	3100	1740	981
8	54	271	535	1190	759	490	326	391	2650	3110	1620	651
9	54	217	525	1190	695	472	319	420	2430	3090	1020	1840
10	55	207	1160	1190	799	468	257	873	2580	3070	1020	2300
11	95	226	8180	1170	3360	461	191	555	3870	3020	1020	2760
12	66	214	1920	1160	3410	452	163	578	3490	3200	1030	2760
13	57	204	991	1160	3380	269	155	2250	2980	3200	592	2760
14	122	194	735	1150	3360	249	149	2470	2890	3200	283	2810
15	715	255	588	1160	3330	244	142	2250	2850	3060	275	2750
16	129	260	512	1150	3290	237	143	1570	2830	3030	275	2740
17	87	282	434	1170	3280	229	141	1300	3940	3010	275	2720
18	211	244	378	1140	3260	243	142	1420	1920	3010	274	2710
19	3600	229	337	1130	3180	231	147	1220	3190	3160	267	2800
20	1700	446	320	1130	3230	220	148	1010	3050	3200	265	3020
21	395	427	302	1130	2940	221	144	574	3000	3200	266	3060
22	529	405	292	1110	2140	221	141	540	2970	3180	265	3000
23	1450	225	298	1400	2110	217	132	743	3000	3170	232	2470
24	1720	1660	1300	2340	2100	214	121	1150	3220	3160	242	2410
25	2680	603	1310	2320	2090	169	121	1240	3210	3080	231	2220
26	2670	387	1290	2320	1900	160	120	1170	3210	2860	227	2130
27	2650	3700	1280	2170	1170	159	123	1140	3230	2840	216	1680
28	2640	1180	1260	1690	1300	157	134	1130	3190	2840	477	1660
29	2620	619	1260	1480	---	156	126	1110	3180	2840	169	1550
30	2610	497	1250	1460	---	155	130	1100	3160	2830	117	435
31	2590	---	1250	1170	---	156	---	1110	---	2830	106	---
TOTAL	29916	20873	33505	42100	72410	15080	5570	29653	82180	95000	23994	60279
MEAN	965	696	1081	1358	2586	486	186	957	2739	3065	774	2009
MAX	3600	3700	8180	2340	9400	1290	327	2470	3940	3200	2710	3110
MIN	52	194	292	1110	452	155	120	147	1190	2830	106	323
AC-FT	59340	41400	66460	83510	143600	29910	11050	58820	163000	188400	47590	119600

CAL YR 1985 TOTAL 213591 MEAN 585 MAX 8180 MIN 52 AC-FT 423700
WTR YR 1986 TOTA[illegible]560 MEAN 1399 MAX 9400 MIN 52 AC-FT 1013000

08104645 NORTH FORK SAN GABRIEL RIVER NEAR LIBERTY HILL, TX

LOCATION.--Lat 30°42'11", long 95°52'37", Williamson County, Hydrologic Unit 12070205, at upstream side of U.S. Highwa 183 bridge, 0.4 mi upstream from Hamilton Branch, 3.8 mi northeast of Liberty Hill.

DRAINAGE AREA.--202 mi .

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1980 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3
OCT 16...	1030	403	7.80	21.0	20	8.0	8.8	100	1.0	180	50
DEC 18...	1030	478	8.10	8.5	7	2.4	10.8	--	0.5	240	27
MAR 17...	0955	485	8.10	17.0	5	0.3	9.1	97	1.3	240	20
APR 28...	1010	470	7.70	23.5	2	0.6	8.0	96	0.9	230	27
JUL 08...	1035	397	8.10	27.5	5	1.0	8.4	--	0.7	190	12
AUG 21...	0950	352	7.90	27.0	5	1.2	7.0	90	0.4	160	10

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
OCT 16...	44	17	13	0.4	1.9	130	40	21	0.3	10	230
DEC 18...	78	12	6.9	0.2	1.4	217	17	8.5	0.3	9.1	260
MAR 17...	69	17	9.7	0.3	1.0	222	18	14	0.4	6.7	270
APR 28...	61	19	10	0.3	1.2	204	23	14	0.3	8.8	260
JUL 08...	50	16	9.4	0.3	1.4	179	18	11	0.3	11	220
AUG 21...	36	16	11	0.4	1.7	146	18	11	0.3	15	200

DATE	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	SOLIDS, VOLATILE, SUSPENDED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DISSOLVED (UG/L AS AS)
OCT 16...	10	9	0.09	0.01	0.10	0.04	0.56	0.6	<0.01	3.8	2
DEC 18...	2	2	--	<0.01	1.40	0.03	0.27	0.3	0.01	1.0	--
MAR 17...	1	1	--	<0.01	0.40	<0.01	--	0.4	<0.01	0.8	--
APR 28...	2	1	--	<0.01	0.20	0.02	0.18	0.2	0.01	1.6	--
JUL 08...	1	--	--	<0.01	<0.10	0.03	0.17	0.2	0.01	1.7	1
AUG 21...	2	1	--	<0.01	<0.10	<0.01	--	0.5	0.01	3.2	2

DATE	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)
OCT 16...	41	<1	<10	<1	12	<1	6	<0.1	<1	<1	3
DEC 18...	--	--	--	--	--	--	--	--	--	--	--
MAR 17...	--	--	--	--	--	--	--	--	--	--	--
APR 28...	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	46	<1	<10	<1	<3	<5	<1	<0.1	<1	<1	<3
AUG 21...	42	1	<10	<1	6	<5	5	<0.1	<1	<1	11

08104650 LAKE GEORGETOWN NEAR GEORGETOWN, TX

LOCATION.--Lat 30°40'03", long 97°43'38", Williamson County, Hydrologic Unit 12070205, at North San Gabriel Dam, on North Fork San Gabriel River, 2.5 mi upstream from Middle Fork San Gabriel River, 3.7 mi northwest of Georgetown, and 4.4 mi upstream from confluence with South Fork San Gabriel River.

DRAINAGE AREA.--247 mi².

WATER-DISCHARGE RECORDS

PEROID OF RECORD.--March 1980 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to May 13, 1980, nonrecording gage at present site and datum.

REMARKS.--The lake is formed by a rolled earthfill dam, 6,700 ft long, including the spillway. The lake was built for water conservation and flood control. Deliberate impoundment began on Mar. 3, 1980. The spillway is an ungated broad-crested weir 1,000 ft long, located near right end of dam. The spillway for normal flood releases is a gated, 11-foot-diameter conduit, controlled by two 5- by 11 foot slide gates, located near the center of dam. The invert for the floodgate is 720.0 ft. A low-flow outlet, consisting of four 3- by 4-foot gates is located near the center of dam. These gates are inverts of 735.0, 749.0, 763.0, and 777.0 ft. Figures given herein represent total content. Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
	861.0	246,700
Top of dam	856.2	221,200
Design flood	834.0	130,800
Crest of spillway	791.0	37,080
Top of conservation pool	720.0	0
Lowest gated outlet (invert of 11-foot conduit)		

COOPERATION.--Records furnished by the U.S. Army Corps of Engineers and reviewed by the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 89,730 acre-ft June 22, 1981 (elevation, 819.44 ft); minimum, 466 acre-ft Mar. 4, 1980 (elevation, 724.46 ft).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 58,470 acre-ft Feb. 11 at 1300 hours (elevation, 804.68 ft); minimum daily, 33,630 acre-ft Oct. 13 at 1800 hours (elevation, 788.25 ft).

Capacity table (elevation, in feet, and total contents, in acre-feet)

788.0	33,330	796.0	44,040	804.0	57,240
792.0	38,410	800.0	50,320	805.0	59,060

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33910	36600	39430	37890	41300	37400	37770	37440	37870	37250	36390	35540
2	33870	36680	39500	38030	41390	37560	37700	37460	37930	37240	36360	35510
3	33850	36680	39600	38180	53930	37670	37610	37450	40090	37250	36300	35500
4	33800	36680	39680	38310	55310	37740	37490	37460	41130	37240	36260	35480
5	33770	36690	39760	38430	55980	37770	37380	37460	41410	37210	36260	35460
6	33720	36700	39830	38570	56540	37740	37280	37460	42370	37210	36240	35840
7	33700	36720	39940	38700	57020	37710	37200	37460	41670	37200	36190	35930
8	33680	36730	40000	38860	57440	37690	37160	37500	40940	37200	36150	36020
9	33660	36730	40110	39010	57940	37660	37170	37570	40050	37190	36110	36020
10	33660	36770	40800	39160	58320	37570	37230	37810	39230	37160	36060	36010
11	33660	36830	45250	39280	56390	37410	37270	37870	39950	37150	36020	36010
12	33640	36860	46010	39410	51440	37300	37300	37830	39460	37110	36000	35980
13	33630	36890	46420	39530	46260	37270	37360	37700	38800	37100	35940	35960
14	33930	36900	46490	39640	41600	37200	37360	37540	38230	37070	35890	35940
15	34040	36940	46700	39750	38990	37150	37400	37420	37640	37040	35860	35920
16	34030	36960	46100	39880	38130	37190	37410	37380	37420	37000	35820	35910
17	34060	36990	44420	40000	37710	37290	37450	37600	38030	36980	35780	35870
18	34090	37030	43240	40120	37480	37380	37500	37650	38230	36940	35750	35840
19	36390	37040	41560	40230	37500	37440	37570	37670	38350	36920	35700	35820
20	36470	37040	40640	40330	37520	37520	37580	37700	38180	36890	35680	35790
21	36570	37040	40380	40420	37480	37610	37610	37700	37810	36850	35640	35790
22	36610	37060	40090	40520	37440	37670	37620	37700	37670	36830	35600	35780
23	36630	37100	39540	40600	37400	37750	37580	37700	37620	36800	35590	35750
24	36630	37520	38620	40700	37360	37830	37520	37740	37570	36760	35560	35720
25	36640	37580	37780	40770	37300	37850	37450	37770	37520	36720	35550	35690
26	36640	37640	37370	40840	37270	37850	37380	37770	37440	36680	35510	35650
27	36630	38860	37330	40920	37200	37830	37300	37770	37400	36640	35490	35640
28	36590	39070	37400	40990	37250	37830	37280	37750	37360	36590	35540	35630
29	36550	39220	37420	41060	---	37810	37330	37740	37330	36540	35510	35600
30	36520	39350	37560	41130	---	37780	37360	37730	37290	36500	35500	35560
31	36520	---	37710	41220	---	37770	---	37820	---	36440	35450	---
MAX	36640	39350	46700	41220	58320	37850	37770	37870	42370	37250	36390	36020
MIN	33630	36600	37330	37890	37200	37150	37160	37380	37290	36440	35450	35460
(†)	790.57	792.70	791.48	794.05	791.13	791.52	791.21	791.56	791.16	790.51	789.73	789.82
(‡)	+2580	+2830	-1640	+3510	-3970	+520	-410	+460	-530	-850	-990	+110

CAL YR 1985 MAX 48070 MIN 33630 (‡) +10
WTR YR 1986 MAX 58320 MIN 33630 (‡) +1620

(†) Elevation, in feet, at end of month.
(‡) Change in contents, in acre-ft.

08104650 LAKE GEORGETOWN NEAR GEORGETOWN, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1980 to current year.

304016097433101 - LAKE GEORGETOWN SITE AC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)
FEB											
26...	1045	1.00	346	8.60	15.5	1.80	9.8	102	K2	K2	160
26...	1046	2.90	--	--	--	--	--	--	--	--	--
26...	1048	10.0	346	8.60	15.0	--	9.4	97	--	--	--
26...	1051	20.0	347	8.50	12.5	--	8.8	86	--	--	--
26...	1054	30.0	348	8.20	12.5	--	7.8	76	--	--	--
26...	1057	40.0	360	8.00	12.0	--	6.7	65	--	--	--
26...	1100	50.0	410	7.90	10.5	--	6.2	58	--	--	--
26...	1103	60.0	429	7.90	10.5	--	5.6	52	--	--	--
26...	1106	70.0	439	7.80	10.5	--	5.4	50	--	--	--
26...	1109	85.0	439	7.80	10.5	--	5.2	48	--	--	210
MAY											
13...	0940	1.00	373	8.30	23.0	2.50	8.2	99	<1	50	180
13...	0941	4.20	--	--	--	--	--	--	--	--	--
13...	0942	10.0	373	8.30	22.5	--	8.2	98	--	--	--
13...	0944	20.0	373	8.30	22.0	--	7.5	89	--	--	--
13...	0946	30.0	380	7.80	20.0	--	3.8	43	--	--	--
13...	0948	35.0	380	7.50	16.5	--	0.6	6	--	--	--
13...	0950	40.0	380	7.50	15.0	--	0.2	2	--	--	--
13...	0952	50.0	388	7.40	13.5	--	0.2	2	--	--	--
13...	0954	60.0	400	7.40	13.0	--	0.2	2	--	--	--
13...	0956	66.0	400	7.40	13.0	--	0.2	2	--	--	190
AUG											
12...	1000	1.00	328	8.10	29.0	3.60	6.5	--	K2	K2	150
12...	1001	1.00	--	--	--	--	--	--	--	--	--
12...	1002	10.0	328	8.10	29.0	--	6.4	--	--	--	--
12...	1004	20.0	328	8.00	28.5	--	5.8	--	--	--	--
12...	1005	25.0	334	7.60	28.0	--	3.5	--	--	--	--
12...	1006	30.0	345	7.30	25.0	--	0.2	2	--	--	--
12...	1008	40.0	365	7.30	21.5	--	0.2	2	--	--	--
12...	1010	50.0	391	7.30	18.5	--	0.2	2	--	--	--
12...	1012	60.0	414	7.20	15.0	--	0.2	2	--	--	--
12...	1014	67.0	425	7.10	15.0	--	0.2	2	--	--	200

DATE	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
FEB											
26...	13	49	10	6.5	0.2	2.0	151	15	9.5	0.2	7.2
26...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
26...	15	66	11	7.0	0.2	1.8	195	16	8.5	--	9.4
MAY											
13...	10	52	12	7.2	0.2	2.0	169	15	9.7	0.2	6.0
13...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
13...	8	57	11	6.6	0.2	2.1	180	13	9.2	--	10
AUG											
12...	11	41	12	7.2	0.3	2.1	141	15	10	0.2	6.5
12...	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--
12...	0	60	11	6.7	0.2	2.1	203	9.1	11	--	13

LAKE GEORGETOWN NEAR GEORGETOWN, TX--Continued

304016097433101 - LAKE GEORGETOWN SITE AC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB										
26...	190	--	<0.01	0.20	0.03	0.37	0.4	0.03	9	<1
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	0.29	0.01	0.30	0.08	0.22	0.3	0.01	30	<10
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	240	0.39	0.01	0.40	0.14	0.46	0.6	0.06	15	52
MAY										
13...	210	0.19	0.01	0.20	0.03	0.37	0.4	0.02	4	3
13...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
13...	--	0.29	0.01	0.30	0.02	0.38	0.4	0.03	20	20
13...	--	--	--	--	--	--	--	--	--	--
13...	--	0.29	0.01	0.30	0.04	0.26	0.3	0.03	20	100
13...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
13...	220	--	<0.01	<0.10	0.48	0.82	1.3	0.04	220	500
AUG										
12...	180	--	<0.01	<0.10	<0.01	--	0.3	<0.01	14	<1
12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	<0.01	<0.10	<0.01	--	0.4	<0.01	10	<10
12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	<0.01	<0.10	<0.01	--	0.4	0.02	50	190
12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
12...	240	--	<0.01	<0.10	1.30	0.6	1.9	0.02	670	550

304006097452501 - LAKE GEORGETOWN SITE BC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)
FEB											
26...	1130	1.00	362	8.40	15.0	1.30	8.6	89	K8	K1	180
26...	1133	10.0	368	8.40	14.0	--	8.0	81	--	--	--
26...	1136	20.0	368	8.20	13.5	--	6.4	64	--	--	--
26...	1139	30.0	396	7.80	13.0	--	5.3	52	--	--	--
26...	1141	40.0	396	7.80	12.0	--	4.7	45	--	--	--
26...	1144	50.0	416	7.80	11.0	--	4.1	39	--	--	--
26...	1147	57.0	418	7.80	11.0	--	3.8	36	--	--	210
MAY											
13...	1020	1.00	380	8.30	24.0	1.80	7.8	96	K1	K3	180
13...	1022	10.0	380	8.20	23.0	--	7.7	93	--	--	--
13...	1024	20.0	383	8.20	22.0	--	6.6	78	--	--	--
13...	1026	25.0	383	8.00	21.5	--	5.5	64	--	--	--
13...	1028	30.0	395	7.60	19.0	--	1.6	18	--	--	--
13...	1030	40.0	395	7.50	15.0	--	1.0	10	--	--	--
13...	1032	54.0	395	7.40	14.0	--	1.0	10	--	--	180
AUG											
12...	1030	1.00	340	8.00	29.5	2.70	6.0	--	K2	K2	160
12...	1032	10.0	340	8.00	29.0	--	6.0	--	--	--	--
12...	1034	20.0	342	7.80	29.0	--	5.0	--	--	--	--
12...	1035	25.0	345	7.30	27.5	--	0.2	--	--	--	--
12...	1036	30.0	346	7.10	25.0	--	0.2	2	--	--	--
12...	1038	40.0	360	7.10	21.5	--	0.2	2	--	--	--
12...	1040	50.0	393	7.10	19.0	--	0.2	2	--	--	--
12...	1041	54.0	402	7.10	18.5	--	0.2	2	--	--	190

LAKE GEORGETOWN NEAR GEORGETOWN, TX--Continued

304006097452501 - LAKE GEORGETOWN SITE BC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)
FEB										
26...	14	52	11	6.5	0.2	2.0	161	15	9.6	7.3
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	21	64	11	6.3	0.2	1.9	184	15	9.8	9.0
MAY										
13...	12	54	12	7.5	0.2	2.0	172	15	9.8	6.2
13...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
13...	3	55	11	6.5	0.2	2.1	180	13	8.9	9.3
AUG										
12...	18	45	12	7.5	0.3	2.3	144	15	10	7.1
12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
12...	0	56	11	6.6	0.2	2.2	190	9.7	9.6	11

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB										
26...	200	--	<0.01	0.30	0.02	0.38	0.4	0.02	23	3
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	0.39	0.01	0.40	0.06	0.34	0.4	0.03	30	<10
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	230	0.29	0.01	0.30	0.22	0.38	0.6	0.21	23	94
MAY										
13...	210	0.19	0.01	0.20	0.01	0.39	0.4	0.03	5	3
13...	--	--	--	--	--	--	--	--	--	--
13...	--	0.19	0.01	0.20	0.03	0.27	0.3	0.03	20	10
13...	--	--	--	--	--	--	--	--	--	--
13...	--	0.19	0.01	0.20	0.07	0.43	0.5	0.03	20	80
13...	--	--	--	--	--	--	--	--	--	--
13...	210	--	<0.01	<0.10	0.35	0.55	0.9	0.02	48	470
AUG										
12...	190	--	<0.01	<0.10	<0.01	--	0.4	0.02	4	<1
12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	<0.01	<0.10	<0.01	--	0.4	0.01	20	<10
12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	<0.01	<0.10	0.16	0.44	0.6	0.03	340	420
12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
12...	220	--	<0.01	<0.10	1.10	0.3	1.4	0.02	640	420

LAKE GEORGETOWN NEAR GEORGETOWN, TX--Continued

304055097471301 - LAKE GEORGETOWN SITE CC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)
FEB											
26...	1210	1.00	444	8.10	15.5	0.8	7.2	75	30	K3	230
26...	1211	1.30	--	--	--	--	--	--	--	--	--
26...	1213	10.0	391	8.00	14.0	--	6.4	65	--	--	--
26...	1216	15.0	407	7.90	14.0	--	5.4	54	--	--	--
26...	1219	20.0	462	7.60	14.0	--	4.0	40	--	--	--
26...	1222	30.0	464	7.60	14.0	--	3.4	34	--	--	230
MAY											
13...	1100	1.00	404	8.10	26.0	0.6	7.0	89	K3	K11	190
13...	1101	1.00	--	--	--	--	--	--	--	--	--
13...	1102	10.0	418	7.70	23.5	--	4.8	58	--	--	--
13...	1104	15.0	397	7.80	22.5	--	5.2	62	--	--	--
13...	1106	20.0	390	7.90	22.0	--	5.4	64	--	--	--
13...	1108	25.0	396	7.60	21.5	--	3.6	42	--	--	--
13...	1110	29.0	400	7.50	20.5	--	1.5	17	--	--	190
AUG											
12...	1105	1.00	354	8.00	30.0	1.50	5.6	--	K10	K4	170
12...	1106	1.00	--	--	--	--	--	--	--	--	--
12...	1107	10.0	358	7.70	29.5	--	3.9	--	--	--	--
12...	1109	20.0	358	7.40	29.0	--	2.3	--	--	--	--
12...	1111	27.0	390	6.90	25.0	--	0.2	2	--	--	180

DATE	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)
FEB										
26...	22	69	14	8.2	0.2	1.4	208	16	10	8.0
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	20	70	13	8.0	0.2	1.7	208	16	10	9.0
MAY										
13...	16	56	13	7.9	0.3	2.2	177	15	9.8	6.7
13...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
13...	7	55	12	7.2	0.2	2.0	180	15	9.7	7.3
AUG										
12...	12	45	13	7.8	0.3	2.1	154	16	11	7.9
12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
12...	75	52	11	6.3	0.2	2.4	100	8.7	9.2	10

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB										
26...	250	--	<0.01	0.50	0.03	0.37	0.4	0.02	4	8
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	0.39	0.01	0.40	0.05	0.25	0.3	0.02	30	10
26...	--	--	--	--	--	--	--	--	--	--
26...	250	0.38	0.02	0.40	0.11	0.49	0.6	0.17	11	160
MAY										
13...	220	0.09	0.01	0.10	0.05	0.45	0.5	0.01	16	2
13...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
13...	--	0.18	0.02	0.20	0.06	0.44	0.5	0.03	<10	<10
13...	--	--	--	--	--	--	--	--	--	--
13...	220	0.08	0.02	0.10	0.15	0.45	0.6	0.02	19	150
AUG										
12...	200	--	<0.01	<0.10	<0.01	--	0.4	0.02	11	<1
12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	<0.01	<0.10	<0.01	--	0.4	0.02	20	<10
12...	--	--	<0.01	<0.10	0.07	0.33	0.4	0.01	40	30
12...	160	--	<0.01	<0.10	1.00	0.5	1.5	0.03	1200	490

LAKE GEORGETOWN NEAR GEORGETOWN, TX--Continued

Lake Georgetown AC (304016097433101)

Phytoplankton Analyses October 1985 to September 1986

Date	2-26-86
Time	1046
TOTAL CELLS/ml	17,381
NUMBER OF SPECIES	23
DEPTH COLLECTED (ft.)	2.9

Organisms	Cells/ml
CHLOROPHYTA (Green algae)	
Chlamydomonas gloeogama	57
Chlorococcum humicola	909
Crucigenia tetrapedia	170
Gloeocystis sp.	284
Golenkinia radiata	57
Kirchneriella lunaris	57
Mesotaenium sp.	852
Oocystis sp.	1363
Scenedesmus abundans	114
Scenedesmus brasiliensis	227
Tetraedron minimum	57
CHRYSOPHYTA (Golden-brown algae)	
Mallomonas sp.	227
CYANOPHYTA (Blue-green algae)	
Aphanocapsa delicatissima	170
Chroococcus limneticus	4146
Synechococcus elongatus	3635
EUGLENOPHYTA (Euglenoids)	
Euglena sp.	1193
CRYPTOPHYTA (Cryptomonads)	
Chroomonas sp.	909
Cryptomonas reflexa	284
Cryptomonas rostrata	1306
Cryptomonas sp.	57
BACILLARIOPHYTA (Diatoms)	
Order Centrales	
Cyclotella ocellata	1193
Order Pennales	
Nitzschia palea	57
Synedra rumpens	57

Lake Georgetown AC (304016097433101)

Phytoplankton Analyses October 1985 to September 1986

Date	5-13-86
Time	0941
TOTAL CELLS/mL	62,992
NUMBER OF SPECIES	16
DEPTH COLLECTED (ft.)	4.2

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Chlorococcum sp.	2954
Crucigenia tetrapedia	738
Gloeocystis sp.	454
Mesotaenium sp.	284
Oocystis sp.	966
Phacotus lenticularis	227
Scenedesmus brasiliensis	454
Scenedesmus serratus	625
Scenedesmus sp.	909
Tetraedron minimum	114
Tetraedron trigonum	57
CYANOPHYTA (blue-green algae)	
Aphanocapsa delicatissima	50041
Synechococcus sp.	4828
EUGLENOPHYTA (euglenoid algae)	
Phacus sp.	57
PYRRHOPHYTA (dinoflagellates)	
Glenodinium sp.	57
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Cyclotella ocellata	227

LAKE GEORGETOWN NEAR GEORGETOWN, TX--Continued

Lake Georgetown AC (304016097433101)

Phytoplankton Analyses October 1985 to September 1986

Date	8-12-86
Time	1001
TOTAL CELLS/mL	46,740
NUMBER OF SPECIES	28
DEPTH COLLECTED (ft.)	1.0

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Ankistrodesmus nannoselene	57
Chlorococcum sp.	114
Crucigenia tetrapedia	795
Gloeocystis sp.	57
Mesotaenium sp.	227
Scenedesmus brasiliensis	114
Tetraedron minimum	170
CHRYSOPHYTA (golden-brown algae)	
Dinobryon sp.	57
CYANOPHYTA (blue-green algae)	
Anabaenopsis sp.	227
Aphanocapsa delicatissima	9997
Aphanocapsa elachista	625
Aphanothece sp.	1931
Dactylococcopsis acicularis	795
Dactylococcopsis fascicularis	5850
Gloeothece linearis	57
Lyngbya nana	14825
Oscillatoria angustissima	3749
Synechococcus sp.	4374
PYRRHOPHYTA (dinoflagellates)	
Ceratium hirundinella f. *brachyceras*	28
Peridinium sp.	114
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Cyclotella stelligera	57
Stephanodiscus sp.	114
Order Pennales	
Anomoeoneis vitrea	57
Nitzschia acicularis	28
Nitzschia fonticola	7
Nitzschia palea	14
Nitzschia paleacea	28
Synedra acus	2272

LAKE GEORGETOWN NEAR GEORGETOWN, TX--Continued

Lake Georgetown CC (304055097471301)

Phytoplankton Analyses October 1985 to September 1986

Date	2-26-86
Time	1211
TOTAL CELLS/ml	9,941
NUMBER OF SPECIES	17
DEPTH COLLECTED (ft.)	1.3

Organisms	Cells/ml
CHLOROPHYTA (Green algae)	
Chlamydomonas gloeogama	57
Chlamydomonas sp.	57
Chlorococcum humicola	284
Mesotaenium sp.	114
Scenedesmus brasiliensis	227
CYANOPHYTA (Blue-green algae)	
Aphanocapsa delicatissima	1477
Chroococcus limneticus	6646
Gloeothece linearis	170
Synechococcus elongatus	170
Synechococcus lineare	57
CRYPTOPHYTA (Cryptomonads)	
Chroomonas sp.	57
BACILLARIOPHYTA (Diatoms)	
Order Centrales	
Cyclotella ocellata	284
Melosira sp.	57
Order Pennales	
Achnanthes sp.	28
Nitzschia acicularis	114
Nitzschia palea	28
Synedra rumpens	114

Lake Georgetown CC (304055097471301)

Phytoplankton Analyses October 1985 to September 1986

Date	5-13-86
Time	1101
TOTAL CELLS/mL	28,840
NUMBER OF SPECIES	20
DEPTH COLLECTED (ft.)	1.0

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Ankistrodesmus falcatus var. *acicularis*	38
Ankistrodesmus nannoselene	38
Chlorococcum sp.	341
Crucigenia tetrapedia	152
Mesotaenium sp.	341
Nephrocytium sp.	76
Pediastrum simplex	531
Phacotus lenticularis	190
Scenedesmus brasiliensis	76
Scenedesmus sp.	76
CHRYSOPHYTA (golden-brown algae)	
Dinobryon sp.	114
CYANOPHYTA (blue-green algae)	
Aphanocapsa delicatissima	23458
Chroococcus varius	303
Synechococcus sp.	2613
EUGLENOPHYTA (euglenoid algae)	
Euglena sp.	76
Gonyostomum semen	38
Trachelomonas gibberosa	38
Trachelomonas volvocina	38
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Cyclotella ocellata	265
Order Pennales	
Synedra sp.	38

LAKE GEORGETOWN NEAR GEORGETOWN, TX--Continued

Lake Georgetown CC (304055097471301)

Phytoplankton Analyses October 1985 to September 1986

Date	8-12-86
Time	1106
TOTAL CELLS/mL	105,315
NUMBER OF SPECIES	35
DEPTH COLLECTED (ft.)	1.0

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Chlorococcum sp.	57
Crucigenia tetrapedia	227
Gloeocystis sp.	57
Mesotaenium sp.	114
Micratinium sp.	341
Quadrigula sp.	170
Scenedesmus armatus	227
Scenedesmus dimorphus	170
Treubaria sp.	114
CYANOPHYTA (blue-green algae)	
Aphanocapsa delicatissima	78838
Aphanothece sp.	7611
Chroococcus dispersus	454
Dactylococcopsis acicularis	284
Dactylococcopsis fascicularis	10338
Oscillatoria angustissima	3055
Oscillatoria sp.	341
Synechococcus lineare	227
Synechococcus sp. 1	1590
Synechococcus sp. 2	482
EUGLENOPHYTA (euglenoid algae)	
Euglena sp. 1	114
Euglena sp. 2	57
PYRRHOPHYTA (dinoflagellates)	
Peridinium sp.	114
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Cyclotella stelligera	114
Stephanodiscus sp.	57
Order Pennales	
Anomoeoneis vitrea	21
Diploneis sp.	7
Navicula cryptocephala	7
Neidium dubium	14
Nitzschia acicularis	14
Nitzschia fonticola	7
Nitzschia microcephala	7
Nitzschia palea	7
Nitzschia paleacea	14
Nitzschia sp.	7
Synedra acus	57

08104700 NORTH FORK SAN GABRIEL RIVER NEAR GEORGETOWN, TX

LOCATION.--Lat 30°39'42", long 97°42'40", Williamson County, Hydrologic Unit 12070205, on left bank 5,000 ft downstream from North Fork dam, 1.5 mi upstream from Middle Fork San Gabriel River, 2.7 mi upstream from Interstate Highway 35, 2.7 mi northwest of Georgetown, and 3.4 mi upstream from mouth.

DRAINAGE AREA.--248 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1968 to current year.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 689.06 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Beginning Mar. 3, 1980, flow largely regulated by Lake Georgetown (station 08104650) located about 1.0 mi upstream from gage.

AVERAGE DISCHARGE.--11 years (water years 1969-79) unregulated, 88.1 ft³/s (63,830 acre-ft/yr); 7 years (water years 1980-86) regulated, 66.8 ft³/s (48,400 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,000 ft³/s Sept. 17, 1974 (gage height, 26.20 ft); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1875, 39.5 ft in September 1921. Flood in April 1957 reached a stage of 34.5 ft, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,260 ft³/s Feb. 12 at 1100 hours (gage height, 10.16 ft); minimum daily, 0.66 ft³/s Jan. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	2.0	4.1	2.5	.95	2.6	35	11	12	40	5.1	5.8
2	5.6	3.1	3.8	2.2	.77	2.6	58	11	12	26	5.1	5.3
3	5.6	2.0	3.6	2.0	58	23	83	11	12	17	5.1	5.3
4	5.6	1.1	3.8	2.0	4.0	40	83	11	12	9.5	5.4	5.3
5	5.6	1.0	3.7	1.8	2.8	56	84	11	12	9.6	5.3	5.3
6	5.6	.88	3.6	1.9	2.4	67	85	11	336	9.6	5.3	7.4
7	5.6	.74	3.6	1.6	2.1	67	69	11	540	9.3	5.3	5.6
8	5.6	.76	3.5	1.7	1.8	67	47	11	537	9.7	5.3	5.3
9	5.5	.75	3.4	1.7	1.8	69	22	12	535	8.0	5.3	5.3
10	5.3	.76	19	1.8	1.6	94	1.2	14	532	6.2	5.3	5.2
11	5.6	1.0	22	1.7	1300	124	1.2	12	534	6.3	5.3	5.1
12	5.7	.95	6.6	1.7	2970	93	1.2	48	531	6.3	5.3	5.3
13	6.6	.88	53	1.6	3020	70	1.1	105	493	5.8	5.1	5.2
14	14	.89	132	1.8	2760	70	1.1	106	403	6.1	5.1	5.1
15	13	1.0	134	1.5	1570	70	1.1	105	402	6.2	5.1	5.1
16	9.1	.86	584	1.5	536	29	1.1	55	215	6.2	5.1	5.1
17	8.8	.84	1280	1.6	277	2.0	1.1	16	81	8.0	5.1	5.1
18	9.8	.86	882	1.4	197	1.8	1.1	12	82	8.3	5.1	5.1
19	42	.76	1200	1.1	93	1.8	1.1	11	82	7.5	5.1	5.1
20	12	.68	710	.85	93	1.9	1.1	11	175	7.8	5.1	5.0
21	11	.75	267	.79	91	2.0	1.1	11	254	7.5	5.1	5.3
22	10	.82	268	.80	91	2.0	1.1	11	150	4.9	5.1	4.8
23	9.9	.70	437	.77	91	2.0	25	11	87	1.6	5.3	4.8
24	9.3	1.9	630	.75	92	2.0	51	11	88	4.4	5.3	4.8
25	8.9	1.2	566	.85	92	26	52	12	89	4.6	5.3	4.7
26	8.5	1.2	331	.74	93	44	53	12	89	4.9	5.3	4.3
27	8.4	9.7	123	.66	94	43	53	12	64	5.0	5.1	4.4
28	8.1	4.8	76	.81	38	44	29	12	45	5.2	5.2	4.5
29	8.1	4.4	77	1.0	---	44	11	12	45	5.3	5.4	4.8
30	8.1	4.2	36	1.0	---	45	11	11	46	5.1	5.2	4.6
31	5.6	---	2.4	.99	---	40	---	12	---	5.1	5.1	---
TOTAL	278.4	51.48	7869.1	43.11	13574.22	1245.7	865.6	722	6495	267.0	161.3	154.0
MEAN	8.98	1.72	254	1.39	485	40.2	28.9	23.3	217	8.61	5.20	5.13
MAX	42	9.7	1280	2.5	3020	124	85	106	540	40	5.4	7.4
MIN	5.3	.68	2.4	.66	.77	1.8	1.1	11	12	1.6	5.1	4.3
AC-FT	552	102	15610	86	26920	2470	1720	1430	12880	530	320	305

CAL YR 1985 TOTAL 32016.48 MEAN 87.7 MAX 1280 MIN .68 AC-FT 63500
WTR YR 1986 TOTAL 31726.91 MEAN 86.9 MAX 3020 MIN .66 AC-FT 62930

08104700 NORTH FORK SAN GABRIEL RIVER NEAR GEORGETOWN, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: January 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3
FEB 26...	1325	148	365	8.00	12.5	20	10	8.4	82	0.7	190	14
MAY 13...	1200	--	384	8.20	23.0	5	1.5	8.2	99	1.4	180	15
AUG 12...	1215	--	349	--	30.0	5	2.5	--	--	--	160	8

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
FEB 26...	56	11	7.0	0.2	2.0	171	12	9.3	0.4	8.1	210
MAY 13...	53	12	7.0	0.2	2.1	167	16	10	0.2	6.2	210
AUG 12...	43	12	7.2	0.3	2.0	149	14	9.6	0.2	7.3	180

DATE	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	SOLIDS, VOLATILE, SUSPENDED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DISSOLVED (UG/L AS AS)
FEB 26...	6	2	0.39	0.01	0.40	0.08	0.42	0.5	0.01	3.7	<1
MAY 13...	2	2	--	<0.01	0.20	0.03	0.27	0.3	0.07	2.7	<1
AUG 12...	2	2	--	<0.01	0.40	0.05	0.35	0.4	<0.01	2.3	1

DATE	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)
FEB 26...	34	<1	<10	1	4	<1	4	<0.1	<1	<1	7
MAY 13...	34	<1	<10	1	<3	2	<1	<0.1	<1	<1	<3
AUG 12...	31	<1	<10	2	8	<5	5	<0.1	<1	<1	8

08104900 SOUTH FORK SAN GABRIEL RIVER AT GEORGETOWN, TX

LOCATION.--Lat 30°37'32", long 97°41'27", Williamson County, Hydrologic Unit 12070205, on right bank at downstream side of downstream bridge of two bridges on Interstate Highway 35, 1.1 mi southwest of the courthouse at Georgetown, and 2.4 mi upstream from mouth.

DRAINAGE AREA.--133 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1948, 1962-67, and December 1967 to current year.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 687.72 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Several observations of water temperature were made during the year. Gage-height telemeter at station.

AVERAGE DISCHARGE.--18 years (water years 1969-86), 48.8 ft^3/s (4.98 in/yr), 35,360 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,400 ft^3/s Sept. 3, 1981 (gage height, 24.60 ft); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1887, about 41 ft Apr. 24, 1957, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 19	1430	3,240	8.08	Feb. 3	1630	*25,300	*19.94
Nov. 24	0900	2,590	7.44	June 6	0600	3,370	8.20
Dec. 10	1630	3,000	7.85	June 11	1530	9,120	12.70
Dec. 11	0830	5,780	10.07				

Minimum daily discharge, 0.13 ft^3/s Oct. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	12	64	66	46	64	26	59	94	47	1.6	7.7
2	.73	24	57	64	47	65	26	47	48	44	6.8	8.4
3	.50	25	54	63	5180	65	25	27	187	42	6.9	5.8
4	.35	20	55	62	594	62	26	21	98	44	9.6	3.5
5	.28	15	52	61	235	60	28	18	66	41	2.2	2.7
6	.24	14	48	60	196	57	28	16	492	37	2.1	81
7	.16	13	49	59	161	55	26	14	116	32	1.8	55
8	.15	14	49	61	148	56	24	14	100	30	1.6	21
9	.13	15	46	64	157	59	21	16	84	28	1.9	14
10	.25	16	399	61	163	55	20	64	74	27	3.7	11
11	.30	21	1360	60	139	51	22	78	1470	24	3.9	9.4
12	.23	14	234	59	128	52	24	31	277	23	2.1	8.2
13	.29	14	164	56	121	49	24	20	161	24	1.5	8.7
14	3.4	15	135	55	120	47	20	18	137	20	1.2	9.4
15	96	18	124	56	114	48	16	21	124	17	1.7	7.6
16	19	18	116	55	109	47	16	19	112	17	3.7	6.4
17	7.9	19	109	54	103	45	15	110	128	16	3.5	6.0
18	6.4	17	102	57	97	45	16	156	246	14	3.8	5.0
19	670	17	96	55	94	43	17	56	171	15	1.9	4.7
20	111	16	93	52	88	41	21	40	100	14	1.3	5.3
21	43	14	90	51	83	40	18	35	87	11	1.1	8.1
22	32	14	88	49	82	39	14	33	81	7.2	.96	6.3
23	24	16	84	48	81	40	13	31	74	7.3	1.3	4.1
24	19	311	80	48	77	38	13	30	69	7.8	2.1	4.0
25	16	61	74	50	74	36	12	34	65	7.1	3.9	5.6
26	17	40	72	48	73	34	13	31	63	7.7	3.5	5.5
27	17	570	73	45	71	34	14	29	60	9.1	1.9	5.2
28	14	138	72	45	66	35	13	25	60	5.0	18	5.2
29	12	82	71	45	---	35	12	25	57	1.5	8.4	6.1
30	13	71	68	44	---	34	16	23	51	1.4	7.0	5.2
31	11	---	68	43	---	30	---	29	---	1.7	2.0	---
TOTAL	1136.41	1654	4246	1696	8647	1461	579	1170	4952	622.8	112.96	336.1
MEAN	36.7	55.1	137	54.7	309	47.1	19.3	37.7	165	20.1	3.64	11.2
MAX	670	570	1360	66	5180	65	28	156	1470	47	18	81
MIN	.13	12	46	43	46	30	12	14	48	1.4	.96	2.7
CFSM	.28	.41	1.03	.41	2.32	.35	.15	.28	1.24	.15	.03	.08
IN.	.32	.46	1.19	.47	2.42	.41	.16	.33	1.39	.17	.03	.09
AC-FT	2250	3280	8420	3360	17150	2900	1150	2320	9820	1240	224	667

CAL YR 1985	TOTAL	21337.90	MEAN	58.5	MAX	1550	MIN	.04	CFSM	.44	IN. 5.97	AC-FT	42320
WTR YR 1986	TOTAL	26613.27	MEAN	72.9	MAX	5180	MIN	.13	CFSM	.55	IN. 7.44	AC-FT	52790

08105000 SAN GABRIEL RIVER AT GEORGETOWN, TX

LOCATION.--Lat 30°39'14", long 97°39'18", Williamson County, Hydrologic Unit 12070203, on left bank 100 ft downstream from Missouri-Kansas Railroad bridge, 1.2 mi below confluence of North and South Forks, about 1.5 mi below bridges on State Highway 418, and 1.8 mi northeast of Williamson County Courthouse in Georgetown.

DRAINAGE AREA.--399 mi².

PERIOD OF RECORD.--February 1924 to August 1925, July 1934 to September 1973, and October 1984 to current year.

GAGE.--Water stage recorder and concrete control. Datum of gage is 643.24 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Daily discharges are not published above 200 ft³/s. Flow is partially regulated by Lake Georgetown (station 08104650) and at times by gates in a recreation dam 3,000 ft upstream. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 155,000 ft³/s Apr. 24, 1957, (gage height, 31.89 ft in gage well, 34.10 ft, from outside floodmark), from rating curve extended above 24,000 ft³/s on basis of contracted-opening measurement of peak flow; no flow at times in 1954-57.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 16.32 ft Feb. 3, 1986, (maximum discharge not determined); minimum daily, 15 ft³/s Aug. 15, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	33	105	96	65	94	84	93	144	103	17	51
2	22	52	93	94	66	93	99	86	86	84	17	35
3	21	48	88	92	---	107	131	61	---	77	25	28
4	20	42	87	91	---	130	132	53	150	68	44	26
5	20	35	83	87	---	146	133	49	103	66	22	25
6	20	34	78	84	---	165	133	47	---	64	20	---
7	19	33	78	84	---	164	104	44	---	61	19	90
8	19	32	77	87	---	163	86	45	---	57	19	51
9	20	32	76	---	---	166	74	49	---	55	18	42
10	21	35	---	88	---	---	49	---	---	50	17	37
11	21	47	---	85	---	---	48	---	---	47	20	33
12	20	35	---	83	---	---	49	92	---	45	20	31
13	19	34	---	79	---	159	49	135	---	44	20	32
14	28	36	---	77	---	157	44	130	---	43	18	33
15	---	47	---	78	---	157	40	137	---	40	15	31
16	59	41	---	76	---	121	37	100	---	40	18	27
17	42	41	---	76	---	75	38	---	---	39	19	26
18	43	40	---	78	---	75	38	---	---	38	19	25
19	---	41	---	76	---	71	41	103	---	36	19	23
20	---	39	---	73	---	69	43	74	---	37	18	26
21	84	37	---	71	---	69	39	67	---	32	15	29
22	67	38	---	70	---	69	32	63	---	27	17	27
23	58	38	---	69	---	70	39	61	192	21	23	24
24	51	---	---	69	---	67	72	58	182	20	22	23
25	45	97	---	70	---	73	72	67	177	22	22	---
26	42	64	---	69	---	96	71	62	174	21	22	25
27	42	---	---	66	---	96	74	61	150	23	20	24
28	40	---	178	66	---	96	63	54	121	21	52	22
29	38	142	173	65	---	97	41	51	116	18	31	24
30	39	118	142	64	---	95	46	49	110	18	27	23
31	37	---	99	64	---	89	---	64	---	16	22	---
TOTAL	---	---	---	---	---	---	2001	---	---	1333	677	---
MEAN	---	---	---	---	---	---	66.7	---	---	43.0	21.8	---
MAX	---	---	---	---	---	---	133	---	---	103	52	---
MIN	---	---	---	---	---	---	32	---	---	16	15	---

CAL YR 1985 TOTAL - MEAN - MAX - MIN -
WTR YR 1986 TOTAL - MEAN - MAX - MIN -

08105100 BERRY CREEK NEAR GEORGETOWN, TX

LOCATION.--Lat 30°41'28", long 97°39'21", Williamson County, Hydrologic Unit 12070205, on right bank at upstream side of upstream service road on Interstate Highway 35, 2.9 mi north of the county courthouse at Georgetown, and 3.6 mi (revised) upstream from mouth.

DRAINAGE AREA.--83.1 mi^2.

PERIOD OF RECORD.--July 1967 to current year.
Water-quality records.--Sediment records: October 1976 to September 1981.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 659.97 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. No regulation or diversions. U.S. Army Corps of Engineers satellite telemeter at station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--19 years, 26.0 ft^3/s (4.25 in/yr), 18,840 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,500 ft^3/s Oct. 31, 1974 (gage height, 19.33 ft); maximum gage height, 20.11 ft from floodmark, Feb. 3, 1986; no flow at times in 1967, 1971-72, and 1978-79, and 1982-85.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1921 occurred September 1921, 25 ft, from information by State Department of Highways and Public Transportation and local residents (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 19	1500	7,170	a14.62	Feb. 3	1730	*12,700	a*20.11
Dec. 11	0830	4,710	11.80				

a From floodmark.

Minimum daily discharge, 0.04 ft^3/s Oct. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.72	6.0	36	44	26	42	20	8.1	12	4.5	1.5	1.6
2	.66	6.8	28	45	26	43	20	8.1	11	4.1	1.5	1.2
3	.59	7.4	27	44	3660	43	20	7.7	13	4.1	1.5	1.2
4	.49	8.5	28	42	447	40	19	7.5	12	4.1	1.6	1.2
5	.44	8.4	27	41	125	39	19	7.5	13	4.0	1.5	1.2
6	.40	8.0	25	40	116	39	19	7.3	13	3.9	1.6	2.2
7	.31	7.0	24	41	97	37	18	6.9	13	3.8	1.5	1.1
8	.37	6.3	24	42	88	36	18	7.3	14	3.6	1.4	1.2
9	.39	6.2	24	49	96	37	18	7.6	14	3.4	1.3	1.2
10	.30	5.9	160	46	97	37	18	9.4	14	3.4	1.3	1.2
11	.26	6.0	1450	43	82	36	17	8.5	76	3.3	1.4	1.1
12	.14	5.8	137	40	75	36	17	12	37	3.2	1.4	1.2
13	.04	6.4	97	38	74	34	17	12	8.7	3.0	1.3	1.1
14	1.6	7.2	79	37	75	32	17	12	6.2	2.9	1.3	1.1
15	3.3	8.0	76	37	71	31	16	12	5.9	2.7	1.3	1.1
16	.83	7.5	73	36	67	30	15	11	5.9	2.7	1.3	1.1
17	.80	7.0	68	36	65	29	13	16	50	2.6	1.3	1.0
18	1.5	7.8	65	35	61	29	13	11	14	2.5	1.3	.95
19	1460	8.1	61	34	60	28	13	13	15	2.4	1.2	.87
20	55	8.2	59	32	56	27	13	14	10	2.3	1.1	.86
21	14	8.8	58	32	53	26	13	14	6.7	2.3	1.2	.88
22	8.1	8.8	59	31	51	25	11	14	6.5	2.2	1.2	1.0
23	7.3	9.1	57	28	51	26	11	13	6.2	2.1	1.4	.83
24	7.3	25	54	28	51	25	10	12	6.3	1.8	1.4	.70
25	7.3	25	51	28	48	25	9.0	11	6.2	1.7	1.3	.70
26	7.3	14	51	27	47	24	8.7	11	6.1	1.7	1.3	.70
27	7.1	323	52	27	46	23	8.6	11	5.7	1.7	1.2	.65
28	6.6	69	50	27	43	21	8.0	10	5.4	1.6	1.3	.65
29	6.3	45	48	27	---	21	7.4	10	5.1	1.6	1.2	.65
30	5.9	40	47	26	---	21	7.5	10	4.8	1.7	1.2	.64
31	5.9	---	47	26	---	21	---	11	---	1.5	1.2	---
TOTAL	1611.24	710.2	3142	1109	5854	963	434.2	325.9	416.7	86.4	41.5	31.08
MEAN	52.0	23.7	101	35.8	209	31.1	14.5	10.5	13.9	2.79	1.34	1.04
MAX	1460	323	1450	49	3660	43	20	16	76	4.5	1.6	2.2
MIN	.04	5.8	24	26	26	21	7.4	6.9	4.8	1.5	1.1	.64
CFSM	.63	.29	1.22	.43	2.52	.37	.17	.13	.17	.03	.02	.01
IN.	.72	.32	1.41	.50	2.62	.43	.19	.15	.19	.04	.02	.01
AC-FT	3200	1410	6230	2200	11610	1910	861	646	827	171	82	62

CAL YR 1985 TOTAL 13450.65 MEAN 36.9 MAX 1460 MIN .04 CFSM .44 IN. 6.02 AC-FT 26680
WTR YR 1986 TOTAL 14725.22 MEAN 40.3 MAX 3660 MIN .04 CFSM .48 IN. 6.59 AC-FT 29210

08105200 BERRY CREEK AT STATF HIGHWAY 971 NEAR GEORGETOWN, TX

LOCATION.--Lat 30°40'33", long 97°36'51", Williamson County, Hydrologic Unit 12070203, at downstream side of State Highway 971 bridge and 4.7 mi northeast of Georgetown.

PERIOD OF RECORD.--November 1964 to September 1973 (periodic discharge measurements only), October 1984 to current year. (discharges below 100 ft³/s only).

GAGE.--Water-stage recorder. Elevation of gage is 617 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 28 to Dec. 30 and Feb. 4-11. Records fair except those for estimated daily discharges, which are poor. Daily discharges are not published above 100 ft³/s. No known regulation above station. Several observations of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Maximum gage height and discharge not determined; minimum daily discharges, 2.2 ft³/s Oct. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	17	49	60	36	46	31	18	19	11	4.8	7.8
2	4.1	24	44	60	36	47	29	17	18	10	7.4	4.9
3	4.0	22	41	60	---	47	29	16	30	9.6	8.6	3.9
4	4.0	21	43	56	---	44	28	16	16	9.5	11	3.7
5	3.6	21	40	54	---	43	28	18	19	9.5	6.3	3.6
6	3.2	20	37	53	---	41	29	17	18	8.9	4.4	16
7	2.7	19	37	53	---	40	28	17	16	9.0	4.1	6.4
8	2.8	19	36	54	---	40	28	17	28	9.0	3.8	5.3
9	3.0	17	36	63	---	40	27	17	13	9.0	3.7	5.2
10	2.5	16	---	60	---	40	27	19	11	8.9	3.7	5.6
11	2.4	17	---	56	---	39	27	19	---	8.9	3.7	5.8
12	2.4	18	---	54	---	39	26	20	---	8.8	3.6	6.1
13	2.2	19	---	50	97	39	25	20	17	8.8	5.1	5.4
14	3.9	19	---	49	96	38	25	19	11	8.5	7.0	5.3
15	24	25	---	49	89	37	27	18	11	8.4	6.5	5.2
16	7.0	26	---	48	84	36	26	17	10	8.3	6.2	5.3
17	7.4	24	100	47	78	36	25	28	---	7.9	6.2	5.0
18	8.7	23	92	47	71	40	24	22	38	7.6	5.4	4.8
19	---	23	86	46	67	42	23	19	36	9.4	2.6	4.5
20	---	21	83	44	63	40	22	18	27	11	2.8	4.5
21	---	21	81	44	60	40	21	16	19	8.4	3.3	5.4
22	35	21	83	42	56	40	21	16	17	7.7	3.5	4.6
23	24	21	79	40	55	39	20	14	16	7.4	6.7	4.3
24	22	---	76	40	54	39	19	12	16	6.5	6.2	3.9
25	21	54	72	40	53	37	19	---	15	6.0	3.7	4.0
26	20	38	69	39	52	37	18	17	15	5.8	3.1	4.1
27	19	---	71	39	50	36	18	15	14	5.5	3.1	3.8
28	18	80	69	38	47	34	17	14	13	5.1	4.7	3.8
29	18	62	67	37	---	33	17	14	12	6.2	4.1	3.6
30	18	52	66	37	---	33	18	13	11	5.8	3.6	3.5
31	17	---	66	37	---	32	---	14	---	5.4	2.6	---
TOTAL	---	---	---	1496	---	1214	722	---	---	251.8	151.5	155.3
MEAN	---	---	---	48.3	---	39.2	24.1	---	---	8.12	4.89	5.18
MAX	---	---	---	63	---	47	31	---	---	11	11	16
MIN	---	---	---	37	---	32	17	---	---	5.1	2.6	3.5
CFSM	---	---	---	.00	---	.00	.00	---	---	.00	.00	.00
IN.	---	---	---	.00	---	.00	.00	---	---	.00	.00	.00
AC-FT	---	---	---	2970	---	2410	1430	---	---	499	301	308

CAL YR 1985 TOTAL - MEAN - MAX - MIN - CFSM - IN. - AC-FT -
WTR YR 1986 TOTAL - MEAN - MAX - MIN - CFSM - IN. - AC-FT -

08105300 SAN GABRIEL RIVER NEAR WEIR, TX

LOCATION.--Lat 30°38'45", long 97°35'06", Williamson County, Hydrologic Unit 12070205, on left bank at downstream side of State Highway 29 bridge, 0.5 mi upstream from Manske Branch, 4.7 mi east of Georgetown, and 54.8 mi upstream from mouth.

DRAINAGE AREA.--563 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is 582.04 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow is partially regulated by Lake Georgetown (station 08104650) since March 1980. The city of Georgetown releases sewage effluent into the river 6.5 mi upstream from this station.

AVERAGE DISCHARGE.--2 years (water years 1978-79) prior to regulation by Lake Georgetown, 165 ft^3/s (119,500 acre-ft/yr); 7 years (water years 1980-86) regulated, 188 ft^3/s (136,200 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 44,500 ft^3/s Feb. 3, 1986 (gage height, 23.23 ft); minimum daily, 0.45 ft^3/s Aug. 22, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1852, about 37 ft Sept. 10, 1921, from information by local residents. The second highest flood since 1852, about 32 ft, occurred Apr. 24, 1957, from information by State Department of Highways and Public Transportation.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 44,500 ft^3/s Feb. 3 at 1800 hours (gage height, 23.23 ft); minimum daily, 18.0 ft^3/s Aug. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	62	225	168	103	152	120	116	165	114	18	75
2	23	83	182	167	103	152	129	123	128	90	19	47
3	22	82	170	163	12600	159	162	88	282	86	23	31
4	22	80	171	158	2070	176	164	75	177	70	48	27
5	22	71	162	153	520	182	162	73	138	68	30	26
6	22	68	149	149	449	198	162	69	813	68	24	215
7	21	65	145	148	374	196	143	66	749	74	23	135
8	22	63	146	150	337	195	121	67	703	72	22	66
9	22	62	141	184	340	196	114	70	606	65	22	50
10	22	62	1290	159	360	205	84	108	583	60	21	42
11	23	77	4170	151	1200	255	83	188	2030	56	23	38
12	22	69	1010	147	2980	238	85	107	1050	53	23	36
13	22	64	581	140	3150	187	83	146	709	53	22	34
14	23	61	567	135	2980	191	75	143	550	53	22	38
15	207	81	526	135	2030	191	69	149	533	47	20	36
16	72	78	750	130	968	171	65	134	422	44	21	32
17	41	70	1680	129	557	116	64	177	373	44	23	29
18	38	70	1290	130	484	115	66	367	336	43	22	29
19	2790	69	1620	128	304	110	69	146	436	41	21	26
20	620	68	1260	123	293	107	70	112	321	42	20	28
21	151	65	584	121	279	105	66	102	396	39	19	38
22	122	65	575	116	274	107	60	96	317	33	19	33
23	96	64	680	113	271	108	57	92	200	31	25	30
24	87	634	1050	114	267	106	98	88	190	28	24	26
25	81	228	920	113	259	104	97	134	184	28	26	37
26	76	124	718	112	261	134	97	93	182	29	23	36
27	75	2210	360	108	258	134	97	87	167	30	23	29
28	70	675	276	107	214	134	92	83	135	24	62	30
29	67	321	269	107	---	133	58	78	127	23	41	29
30	66	265	242	104	---	132	63	75	120	21	28	30
31	65	---	178	104	---	130	---	88	---	20	25	---
TOTAL	5037	6056	22087	4166	34285	4819	2875	3540	13122	1549	782	1358
MEAN	162	202	712	134	1224	155	95.8	114	437	50.0	25.2	45.3
MAX	2790	2210	4170	184	12600	255	164	367	2030	114	62	215
MIN	21	61	141	104	103	104	57	66	120	20	18	26
AC-FT	9990	12010	43810	8260	68000	9560	5700	7020	26030	3070	1550	2690

CAL YR 1985 TOTAL 103769 MEAN 284 MAX 7580 MIN 19 AC-FT 205800
WTR YR 1986 TOTAL 99676 MEAN 273 MAX 12600 MIN 18 AC-FT 197700

08105300 SAN GABRIEL RIVER NEAR WEIR, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1976 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: December 1976 to September 1982.

INSTRUMENTATION.--Water temperature was recorded continuously from December 1976 to September 1982.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum daily, 35.5°C July 27, 1982; minimum daily, 2.5°C Jan. 22, 1978, Jan. 2, 1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3
OCT 22...	1500	81	372	7.60	22.0	50	37	8.6	100	1.1	160	26
DEC 18...	1320	852	403	7.90	11.0	10	15	11.4	103	0.9	180	5
MAR 18...	1045	124	505	7.90	20.0	5	0.5	9.4	106	1.3	240	31
APR 28...	1330	95	458	8.10	24.0	4	2.3	7.8	94	1.3	210	19
JUL 09...	1015	70	459	7.70	27.5	5	4.0	7.0	--	1.6	200	25
AUG 21...	1445	15	491	8.10	28.0	10	13	6.5	--	1.8	210	10

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT 22...	54	7.3	8.5	0.3	2.7	139	21	12	0.2	11	200
DEC 18...	57	9.7	7.9	0.3	1.9	177	14	8.7	0.2	8.4	210
MAR 18...	75	13	13	0.4	1.3	210	17	19	0.3	6.2	270
APR 28...	64	13	11	0.3	1.6	194	19	17	0.2	7.8	250
JUL 09...	60	13	14	0.4	1.6	178	19	20	0.3	10	240
AUG 21...	57	16	21	0.7	2.3	198	18	29	0.2	12	270

DATE	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)
OCT 22...	53	--	1.57	0.03	1.60	0.12	0.38	0.5	0.16	4.5	1
DEC 18...	23	10	1.39	0.01	1.40	0.05	0.35	0.4	0.04	1.3	--
MAR 18...	2	<1	1.77	0.03	1.80	<0.01	--	0.7	0.08	1.1	--
APR 28...	2	<1	1.08	0.02	1.10	0.05	0.25	0.3	0.10	2.9	--
JUL 09...	7	--	0.87	0.03	0.90	0.04	0.36	0.4	0.16	3.2	1
AUG 21...	27	10	0.18	0.02	0.20	0.03	0.77	0.8	0.30	6.3	3

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 22...	37	<1	<10	<1	9	<1	3	<0.1	<1	<1	12
DEC 18...	--	--	--	--	--	--	--	--	--	--	--
MAR 18...	--	--	--	--	--	--	--	--	--	--	--
APR 28...	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	43	<1	<10	1	6	<5	4	<0.1	<1	<1	5
AUG 21...	43	<1	<10	<1	6	<5	<1	<0.1	<1	<1	8

08105600 GRANGER LAKE NEAR GRANGER, TX

LOCATION.--30°41'34", long 97°19'34", Williamson County, Hydrologic Unit 12070205, at Granger Dam on San Gabriel River, 1.5 mi south of Friendship, 2.2 mi upstream from Willis Creek, 7.1 mi east of Granger, and at mile 31.9.

DRAINAGE AREA.--730 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1980 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Mar. 27, 1980, nonrecording gage at present site and datum.

REMARKS.--The lake is formed by a rolled earthfill dam, 16,320 ft long, including the spillway. The lake was built for water conservation and flood control. Deliberate impoundment began on Jan. 21, 1980. The spillway is an ungated 950-foot long ogee weir, located near right end of dam. The spillway for normal flood releases is a gated 18-foot-diameter conduit, controlled by two 8- by 18-foot slide gates, located near the center of dam. The invert for the floodgate is 457.0 ft. A low-flow outlet consists of three 3- by 4-foot gated openings, with invert elevations of 486.0, 494.0, and 502.0 ft. Figures given herein represent total contents. Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam..	555.0	674,500
Designed flood..	550.3	580,000
Crest of spillway...	528.0	244,200
Top of conservation pool......................................	504.0	65,510
Lowest gated outlet (invert of 18-foot conduit)................	457.0	0

COOPERATION.--Records furnished by the U.S. Army Corps of Engineers and reviewed by the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 186,200 acre-ft June 19, 1981 (elevation, 522.25 ft); minimum, 615 acre-ft Jan. 21, 1980 (elevation, 462.60 ft).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 107,000 acre-ft Feb. 10 at 1500 hours (elevation, 511.90 ft); minimum daily, 63,090 acre-ft Oct. 8 at 1500 hours (elevation, 503.44 ft).

Capacity table (elevation, in feet, and total contents, in acre-feet)

503.0	61,260	507.0	79,610	511.0	101,600
505.0	69,970	509.0	90,030	512.0	107,700

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63260	66170	79110	66210	65900	68710	65990	69650	68030	67860	65600	65550
2	63260	66340	78460	66300	65990	68480	65900	69880	67990	67900	65550	65640
3	63220	66430	77420	66430	87200	68350	65950	69830	68210	67940	65460	65680
4	63260	66570	76540	66520	101200	68260	65990	69830	68120	67940	65420	65770
5	63180	66660	74990	66610	102900	68120	65990	69650	68120	67810	65420	65770
6	63130	66740	73290	66740	104000	68030	66080	69470	69200	67770	65290	67280
7	63130	66740	71610	66700	105000	67940	66170	69240	70150	67770	65240	67680
8	63090	66920	69970	66520	105700	67940	66080	69060	70380	67720	65160	67770
9	63090	67050	69380	66390	106500	67900	65900	68930	70100	67630	65110	67860
10	63350	67100	74040	66210	105500	67590	65770	69740	69380	67590	65330	67900
11	63350	67230	85390	65990	102300	67360	65860	69830	72300	67460	65380	67810
12	63390	67460	87680	65820	103200	67050	65990	69740	73000	67320	65290	67770
13	63390	67540	88330	65950	104100	66740	66170	69650	72630	67190	65290	67940
14	63940	67630	88170	66260	104200	66880	66210	69650	71800	67100	65240	67940
15	64370	67770	87790	66610	102900	67050	66260	69560	70780	67010	65200	67940
16	64810	68080	86820	67410	99770	67140	66340	69610	69740	66970	65110	67860
17	64940	68300	87040	67680	95790	67140	66520	70970	69240	66880	65070	67770
18	65110	68350	86660	67680	91860	67140	66660	71520	68840	66790	64940	67630
19	70330	68350	85700	67680	87470	66920	66830	71560	68390	66740	64940	67540
20	71930	68170	83760	67630	84440	66790	66920	71290	67590	66700	64850	67410
21	72300	68080	80720	67590	80820	66660	66920	70830	67050	66610	64810	67590
22	72350	67990	77570	67320	77080	66520	67010	70380	66790	66520	64760	67590
23	71980	68080	74760	66920	73570	66430	67050	69920	66880	66430	64810	67460
24	71060	68930	73140	66570	71290	66300	67190	69920	67050	66340	65020	67230
25	69790	69430	71560	66170	69380	66170	67320	69650	67140	66210	65020	67010
26	68620	69610	69880	65730	68840	66120	67500	69240	67410	66120	64980	66830
27	67280	76930	68210	65600	68840	66120	67630	68800	67540	66040	64940	66610
28	66660	78610	66830	65640	68840	66170	67720	68300	67680	65900	65160	66480
29	66390	78960	66390	65640	---	66080	67630	67770	67770	65820	65200	66300
30	66080	79160	66480	65730	---	66040	67720	67320	67770	65770	65160	66080
31	65990	---	66340	65820	---	65990	---	67050	---	65640	65110	---
MAX	72350	79160	88330	67680	106500	68710	67720	71560	73000	67940	65600	67940
MIN	63090	66170	66340	65600	65900	65990	65770	67050	66790	65640	64760	65550
(†)	504.11	506.93	504.19	504.07	504.75	504.11	504.50	504.35	504.51	504.03	503.91	504.13
(‡)	+2640	+13170	-12820	-520	+3020	-2850	+1730	-670	+720	-2130	-530	+970

CAL YR 1985 MAX 103100 MIN 62800 (‡) -1250
WTR YR 1986 MAX 106500 MIN 63090 (‡) +2730

(†) Elevation, in feet, at end of month.
(‡) Change in contents, in acre-feet.

08105600 GRANGER LAKE NEAR GRANGER, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1980 to current year.

304132097200801 - GRANGER LAKE SITE AC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)
MAR											
03...	1125	1.00	378	8.40	14.5	0.3	8.8	88	K18	K4	170
03...	1126	0.5	--	--	--	--	--	--	--	--	--
03...	1127	10.0	372	8.30	14.0	--	8.5	84	--	--	--
03...	1129	20.0	376	8.30	14.0	--	8.5	84	--	--	--
03...	1131	30.0	379	8.30	14.0	--	8.3	82	--	--	--
03...	1133	40.0	377	8.30	14.0	--	8.3	82	--	--	--
03...	1135	48.0	382	8.30	14.0	--	7.6	75	--	--	170
MAY											
21...	1210	1.00	390	8.10	22.5	0.6	7.3	86	K3	K2	170
21...	1211	1.00	--	--	--	--	--	--	--	--	--
21...	1212	10.0	390	8.10	22.0	--	7.3	86	--	--	--
21...	1214	20.0	390	8.10	22.0	--	7.3	86	--	--	--
21...	1216	30.0	394	7.90	22.0	--	6.2	73	--	--	--
21...	1218	35.0	398	7.90	21.5	--	5.7	66	--	--	--
21...	1220	40.0	410	7.70	21.5	--	4.7	55	--	--	--
21...	1222	48.0	410	7.60	21.5	--	4.5	52	--	--	180
AUG											
13...	1015	1.00	325	7.90	28.5	0.9	5.9	--	<2	K2	130
13...	1016	1.00	--	--	--	--	--	--	--	--	--
13...	1017	10.0	325	7.90	28.0	--	5.7	--	--	--	--
13...	1019	20.0	325	7.90	28.0	--	5.7	--	--	--	--
13...	1021	30.0	328	7.70	28.0	--	4.9	--	--	--	--
13...	1023	42.0	328	7.60	28.0	--	4.3	--	--	--	130

DATE	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
MAR											
03...	20	56	8.4	9.1	0.3	2.6	154	13	10	0.3	6.0
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
03...	19	56	8.5	9.3	0.3	2.6	156	16	11	--	6.3
MAY											
21...	19	53	9.1	12	0.4	2.5	151	23	16	0.3	2.4
21...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
21...	18	56	9.4	12	0.4	2.4	161	21	16	--	6.4
AUG											
13...	11	38	8.9	13	0.5	2.5	121	21	16	0.3	7.3
13...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
13...	11	38	8.9	13	0.5	2.6	121	21	16	--	7.3

GRANGER LAKE NEAR GRANGER, TX--Continued

304132097200801 - GRANGER LAKE SITE AC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
MAR										
03...	200	1.06	0.04	1.10	0.04	0.56	0.6	0.04	7	<1
03...	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--
03...	--	1.06	0.04	1.10	0.04	0.56	0.6	0.04	60	<10
03...	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--
03...	200	1.05	0.05	1.10	0.09	0.71	0.8	0.08	30	9
MAY										
21...	210	0.94	0.06	1.00	0.05	0.45	0.5	0.02	8	<1
21...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
21...	--	0.92	0.08	1.00	0.05	0.45	0.5	0.04	30	<10
21...	--	--	--	--	--	--	--	--	--	--
21...	--	0.97	0.13	1.10	0.19	0.51	0.7	0.08	30	<10
21...	220	0.98	0.12	1.10	0.24	0.46	0.7	0.10	20	7
AUG										
13...	180	--	0.01	<0.10	0.02	0.48	0.5	0.04	8	<1
13...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
13...	--	--	<0.01	<0.10	0.04	0.56	0.6	0.03	30	<10
13...	--	--	--	--	--	--	--	--	--	--
13...	180	--	0.02	<0.10	0.10	0.7	0.8	0.06	7	<1

304209097195101 - GRANGER LAKE SITE AL

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
MAR							
03...	1050	1.00	382	8.30	14.5	8.9	89
03...	1052	10.0	383	8.30	14.0	8.9	88
03...	1054	20.0	379	8.30	14.0	8.8	87
03...	1056	30.0	379	8.10	14.0	8.4	83
03...	1058	44.0	384	7.60	14.0	6.2	61
MAY							
21...	1150	1.00	390	8.10	22.5	7.8	92
21...	1152	10.0	390	8.10	22.5	7.7	91
21...	1154	20.0	390	8.00	22.0	7.0	82
21...	1156	24.0	390	8.00	22.0	6.6	77
AUG							
13...	1030	1.00	325	8.10	28.5	6.9	--
13...	1032	10.0	325	8.10	28.5	6.5	--
13...	1034	20.0	325	8.00	28.0	6.3	--
13...	1036	30.0	325	7.90	28.0	5.6	--

304206097215001 - GRANGER LAKE SITE BC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	NITROGEN, NITRATE TOTAL (MG/L AS N)
MAR									
03...	1205	1.00	380	8.40	14.5	0.3	8.6	86	1.26
03...	1207	10.0	382	8.30	14.0	--	8.2	81	--
03...	1209	15.0	390	8.30	14.0	--	7.6	75	1.45
03...	1211	20.0	392	8.30	14.0	--	7.3	72	--
03...	1213	32.0	396	8.10	13.5	--	6.8	67	1.43
MAY									
21...	1250	1.00	385	8.20	23.0	0.5	7.8	93	0.93
21...	1252	10.0	385	8.20	22.5	--	7.7	91	--
21...	1254	20.0	385	8.20	22.5	--	7.6	90	0.93
21...	1256	32.0	385	7.60	21.5	--	5.0	58	0.93
AUG									
13...	1055	1.00	326	8.20	29.5	0.9	6.9	--	--
13...	1057	10.0	327	8.10	29.0	--	6.6	--	--
13...	1059	20.0	331	7.60	28.0	--	3.9	--	--
13...	1101	29.0	336	7.50	28.0	--	3.2	--	--

304206097215001 - GRANGER LAKE SITE BC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAR								
03...	0.04	1.30	0.02	0.78	0.8	0.05	30	<10
03...	--	--	--	--	--	--	--	--
03...	0.05	1.50	0.02	0.68	0.7	0.08	30	10
03...	--	--	--	--	--	--	--	--
03...	0.07	1.50	0.10	0.8	0.9	0.21	40	40
MAY								
21...	0.07	1.00	0.03	0.47	0.5	0.05	20	10
21...	--	--	--	--	--	--	--	--
21...	0.07	1.00	0.07	0.43	0.5	0.03	20	20
21...	0.07	1.00	0.12	0.58	0.7	0.09	30	30
AUG								
13...	<0.01	<0.10	<0.01	--	0.5	0.02	10	<10
13...	--	--	--	--	--	--	--	--
13...	0.02	<0.10	0.06	0.54	0.6	0.05	20	<10
13...	0.02	<0.10	0.09	0.61	0.7	0.05	20	30

304108097215101 - GRANGER LAKE SITE CC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)
MAR											
03...	1240	1.00	405	8.30	14.5	0.3	8.8	88	K72	K7	190
03...	1242	10.0	411	8.20	14.0	--	8.4	83	--	--	--
03...	1244	20.0	417	8.20	14.0	--	8.2	81	--	--	--
03...	1246	30.0	417	8.20	14.0	--	7.9	78	--	--	--
03...	1248	38.0	417	8.20	14.0	--	7.9	78	--	--	190
MAY											
21...	1340	1.00	394	8.10	22.5	0.7	7.2	85	K6	K2	170
21...	1342	10.0	394	8.00	22.5	--	7.0	83	--	--	--
21...	1344	20.0	400	7.80	22.0	--	5.5	64	--	--	--
21...	1346	30.0	400	7.70	21.5	--	4.8	56	--	--	--
21...	1348	44.0	400	7.50	21.0	--	3.9	45	--	--	170
AUG											
13...	1120	1.00	327	8.20	29.5	1.10	7.6	--	<2	K5	140
13...	1122	10.0	329	8.00	28.5	--	6.7	--	--	--	--
13...	1124	20.0	337	7.40	28.0	--	3.4	--	--	--	--
13...	1126	30.0	339	7.30	28.0	--	2.6	--	--	--	--
13...	1128	40.0	341	7.30	27.5	--	2.2	--	--	--	140

DATE	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)
MAR										
03...	24	60	9.2	9.5	0.3	2.5	164	15	11	6.7
03...	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--
03...	20	61	9.4	9.7	0.3	2.4	171	16	11	7.0
MAY										
21...	18	53	9.0	12	0.4	2.5	151	23	16	2.8
21...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
21...	19	55	8.7	11	0.4	2.4	154	20	15	8.2
AUG										
13...	16	40	8.9	13	0.5	2.5	121	22	16	7.8
13...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
13...	9	40	8.9	13	0.5	2.5	128	20	16	8.0

GRANGER LAKE NEAR GRANGER, TX--Continued

304108097215101 - GRANGER LAKE SITE CC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
MAR										
03...	210	1.16	0.04	1.20	0.05	0.65	0.7	0.05	15	2
03...	--	--	--	--	--	--	--	--	--	--
03...	--	1.16	0.04	1.20	0.07	0.33	0.4	0.04	20	20
03...	--	--	--	--	--	--	--	--	--	--
03...	220	1.16	0.04	1.20	0.08	0.62	0.7	0.07	9	26
MAY										
21...	210	0.93	0.07	1.00	0.07	0.33	0.4	0.02	14	1
21...	--	--	--	--	--	--	--	--	--	--
21...	--	0.91	0.09	1.00	0.14	0.36	0.5	0.06	30	<10
21...	--	--	--	--	--	--	--	--	--	--
21...	210	1.10	0.10	1.20	0.27	0.53	0.8	0.11	31	7
AUG										
13...	180	--	<0.01	<0.10	0.01	0.39	0.4	0.04	74	17
13...	--	--	<0.01	<0.10	<0.01	--	0.6	0.02	20	<10
13...	--	--	0.04	<0.10	0.06	0.54	0.6	0.03	20	<10
13...	--	--	--	--	--	--	--	--	--	--
13...	190	0.05	0.05	0.10	0.11	0.49	0.6	0.04	7	6

303947097231401 - GRANGER LAKE SITE DC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)
MAR											
03...	1310	1.00	491	8.10	14.5	0.4	7.7	77	100	37	230
03...	1311	0.7	--	--	--	--	--	--	--	--	--
03...	1312	10.0	486	8.00	14.0	--	7.1	70	--	--	--
03...	1315	24.0	489	7.90	14.0	--	6.2	61	--	--	230
MAY											
21...	1440	1.00	405	8.10	23.5	0.5	8.8	106	K20	K20	180
21...	1441	0.8	--	--	--	--	--	--	--	--	--
21...	1442	5.00	412	7.60	22.0	--	5.5	64	--	--	--
21...	1444	10.0	376	7.50	20.5	--	4.4	50	--	--	--
21...	1446	20.0	376	7.40	20.5	--	4.0	46	--	--	--
21...	1448	24.0	376	7.40	20.5	--	3.9	44	--	--	160
AUG											
13...	1200	1.00	344	8.00	29.0	0.7	7.5	--	K8	K5	140
13...	1201	1.00	--	--	--	--	--	--	--	--	--
13...	1202	10.0	350	7.40	28.5	--	4.7	--	--	--	--
13...	1204	15.0	361	7.20	27.5	--	0.8	--	--	--	--
13...	1206	22.0	366	7.10	27.5	--	0.8	--	--	--	150

DATE	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)
MAR										
03...	29	73	12	12	0.4	1.9	203	16	13	7.5
03...	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--
03...	29	73	12	12	0.4	2.0	203	17	14	8.1
MAY										
21...	20	57	9.6	12	0.4	2.3	162	21	16	7.3
21...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
21...	9	51	7.9	9.2	0.3	2.3	151	19	13	8.5
AUG										
13...	8	40	9.3	13	0.5	2.5	130	20	17	8.1
13...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
13...	8	43	9.4	13	0.5	2.6	138	20	17	8.5

GRANGER LAKE NEAR GRANGER, TX--Continued

303947097231401 - GRANGER LAKE SITE DC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
MAR										
03...	260	1.57	0.03	1.60	0.04	0.36	0.4	0.03	4	3
03...	--	--	--	--	--	--	--	--	--	--
03...	--	1.57	0.03	1.60	0.07	0.43	0.5	0.06	10	20
03...	260	1.46	0.04	1.50	0.09	0.61	0.7	0.05	7	59
MAY										
21...	220	0.84	0.06	0.90	0.07	0.73	0.8	0.07	44	2
21...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
21...	--	1.06	0.04	1.10	0.16	0.44	0.6	0.07	20	10
21...	--	--	--	--	--	--	--	--	--	--
21...	200	1.05	0.05	1.10	0.26	0.54	0.8	0.12	22	32
AUG										
13...	190	--	<0.01	<0.10	<0.01	--	0.6	0.02	4	15
13...	--	--	--	--	--	--	--	--	--	--
13...	--	--	0.02	<0.10	0.04	0.56	0.6	0.03	10	30
13...	--	--	--	--	--	--	--	--	--	--
13...	200	--	0.04	<0.10	0.23	0.77	1.0	0.13	240	280

Granger Lake AC (304132097200801)

Phytoplankton Analyses October 1985 to September 1986

Date	3-03-86
Time	1126
TOTAL CELLS/ml	7,620
NUMBER OF SPECIES	28
DEPTH COLLECTED (ft.)	0.5

Organisms	Cells/ml
CHLOROPHYTA (Green algae)	
Ankistrodesmus nannoselene	170
Chlamydomonas sp.	57
Chlorococcum sp.	454
Chodatella subsalsa	114
Mesotaenium sp.	227
Nephrocytium agardhianum	454
Oocystis sp.	625
Scenedesmus abundans	227
Scenedesmus armatus	227
Scenedesmus brasiliensis	227
Tetraedron sp.	57
Tetrastrum staurogeniaeforme	227
CHRYSOPHYTA (Golden-brown algae)	
Mallomonas sp.	57
CYANOPHYTA (Blue-green algae)	
Aphanocapsa delicatissima	1136
Chroococcus sp.	114
Dactylococcopsis fascicularis	114
Dactylococcopsis raphidioides	227
Synechococcus elongatus	1022
CRYPTOPHYTA (Cryptomonads)	
Chroomonas sp.	114
Cryptomonas sp.	57
BACILLARIOPHYTA (Diatoms)	
Order Centrales	
Cyclotella stelligera	16
Cyclotella sp.	32
Melosira granulata	16
Melosira granulata var. angustissima	32
Melosira italica	1104
Stephanodiscus astrea	371
Stephanodiscus niagarae	16
Order Pennales	
Nitzschia subacicularis	126

Granger Lake AC (304132097200801)

Phytoplankton Analyses October 1985 to September 1986

Date	5-21-86
Time	1211
TOTAL CELLS/mL	35,246
NUMBER OF SPECIES	29
DEPTH COLLECTED (ft.)	1.0

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Ankistrodesmus convolutus	284
Carteria sp.	114
Chlamydomonas sp.	57
Chlorococcum sp.	625
Chodatella longiseta	114
Closterium sp.	170
Crucigenia irregularis	909
Gloeocystis sp.	114
Kirchneriella lunaris var. *irregularis*	57
Mesotaenium sp.	227
Nephrocytium agardhianum	227
Oocystis lacustris	227
Phacotus lenticularis	909
Scenedesmus brasiliensis	227
Schroederia setigera	170
CYANOPHYTA (blue-green algae)	
Aphanocapsa delicatissima	13973
Aphanocapsa elachista	682
Chroococcus sp.	114
Dactylococcopsis sp.	57
Merismopedia tenuissima	13632
Synechococcus elongatus	568
Synechococcus lineare var. *spirale*	1363
EUGLENOPHYTA (euglenoid algae)	
Euglena sp.	57
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Cyclotella sp.	57
Stephanodiscus astrea ?	170
Stephanodiscus hantzschii	57
Order Pennales	
Navicula *schroeteri* var. *escambia*	14
Nitzschia amphibia	14
Nitzschia subacicularis	57

Granger Lake AC (304132097200801)

Phytoplankton Analyses October 1985 to September 1986

Date	8-13-86
Time	1016
TOTAL CELLS/mL	256,518
NUMBER OF SPECIES	38
DEPTH COLLECTED (ft.)	1.0

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Chlorococcum sp.	568
Chodatella subsalsa	114
Gloeocystis sp.	114
Kirchneriella lunaris	114
Kirchneriella obesa	227
Mesotaenium sp.	454
Oocystis sp.	454
Tetraedron trigonum var. *gracile*	341
Zygnemopsis ? sp.	227
CYANOPHYTA (blue-green algae)	
Anabaenopsis sp.	26128
Aphanocapsa delicatissima	106216
Aphanocapsa elachista	23288
Aphanothece sp.	19312
Chroococcus limneticus	909
Chroococcus varius	682
Dactylococcopsis acicularis	114
Dactylococcopsis fascicularis	1704
Dactylococcopsis mucicola	227
Lyngbya limnetica	6134
Lyngbya nana	22493
Merismopedia glauca	2726
Oscillatoria planctonia	1818
Pseudoanabaena sp.	27378
Romeria sp.	3408
Spirulina laxissima	7043
Synechococcus aeruginosa	795
Synechococcus lineare	1931
Synechococcus sp.	682
EUGLENOPHYTA (euglenoid algae)	
Euglena acus	114
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Melosira italica ?	227
Stephanodiscus sp.	114
Order Pennales	
Anomoeoneis vitrea	57
Diploneis sp.	7
Nitzschia fonticola	85
Nitzschia palea	114
Nitzschia paleacea	28
Nitzschia sp.	57
Synedra sp.	114

Granger Lake DC (303947097231401)

Phytoplankton Analyses October 1985 to September 1986

Date	3-03-86
Time	1311
TOTAL CELLS/ml	4,498
NUMBER OF SPECIES	26
DEPTH COLLECTED (ft.)	0.7

Organisms	Cells/ml
CHLOROPHYTA (Green algae)	
Chlamydomonas sp.	170
Chlorella sp.	114
Chlorococcum sp.	398
Crucigenia tetrapedia	227
Gloeocystis sp.	114
Golenkinia radiata	114
Mesotaenium sp.	57
Schroederia setigera	57
Tetrastrum glabrum	114
CYANOPHYTA (Blue-green algae)	
Aphanocapsa delicatissima	341
Aphanothece saxicola	57
Chroococcus sp.	398
Dactylococcopsis fascicularis	227
Dactylococcopsis raphidioides	114
Microcystis marina	568
Synechococcus aeruginosa	114
Synechococcus elongatus	511
Synechocystis sp.	114
CRYPTOPHYTA (Cryptomonads)	
Chroomonas sp.	170
Cryptomonas erosa	57
BACILLARIOPHYTA (Diatoms)	
Order Centrales	
Stephanodiscus astrea	57
Order Pennales	
Caloneis ventricosa	57
Navicula notha	7
Nitzschia acicularis	170
Nitzschia palea	57
Nitzschia subacicularis	114

Granger Lake DC (303947097231401)

Phytoplankton Analyses October 1985 to September 1986

Date	5-21-86
Time	1441
TOTAL CELLS/mL	46,131
NUMBER OF SPECIES	34
DEPTH COLLECTED (ft.)	0.8

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Ankistrodesmus nannoselene	114
Carteria sp.	454
Chlamydomonas sp.	568
Chlorella sp.	795
Chlorococcum sp.	568
Chodatella longiseta	568
Closterium sp.	114
Crucigenia tetrapedia	454
Dictyosphaerium sp.	114
Franceia ovalis	114
Gloeocystis sp.	114
Kirchneriella contorta	114
Mesotaenium sp.	114
Nephrocytium agardhianum	341
Oocystis lacustris	114
Phacotus lenticularis	341
Scenedesmus serratus	227
Schroederia setigera	227
Tetrastrum staurogeniaeforme	454
Treubaria sp.	114
CYANOPHYTA (blue-green algae)	
Aphanocapsa delicatissima	14427
Chroococcus sp.	3294
Dactylococcopsis fascicularis	568
Merismopedia tenuissima	12496
Synechococcus elongatus	7043
Synechococcus lineare var. *spirale*	227
EUGLENOPHYTA (euglenoid algae)	
Euglena sp.	114
Trachelomonas gibberosa	227
Trachelomonas hispida	114
CRYPTOPHYTA (cryptomonads)	
Rhodomonas sp.	227
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Cyclotella stelligera	341
Cyclotella sp.	682
Stephanodiscus hantzschii	341
Order Pennales	
Nitzschia amphibia	7

GRANGER LAKE NEAR GRANGER, TX--Continued

Granger Lake DC (303947097231401)

Phytoplankton Analyses October 1985 to September 1986

Date	8-13-86
Time	1201
TOTAL CELLS/mL	210,764
NUMBER OF SPECIES	48
DEPTH COLLECTED (ft.)	1.0

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Ankistrodesmus convolutus	227
Chlorococcum sp.	454
Chodatella subsalsa	114
Coelastrum sphaericum	909
Dictyosphaerium sp.	454
Elakatothrix viridis	114
Francela sp.	227
Gloeocystis sp.	795
Kirchneriella obesa	114
Mesotaenium sp.	1363
Scenedesmus serratus	1363
Tetraedron trigonum var. gracile	227
Tetrastrum minimum	114
Tetrastrum staurogeniaeforme	909
Treubaria sp.	114
CYANOPHYTA (blue-green algae)	
Anabaenopsis sp.	8747
Aphanocapsa delicatissima	123710
Aphanocapsa elachista	11587
Aphanothece sp. 1	8634
Aphanothece sp. 2	1818
Chroococcus dispersus	909
Chroococcus varius	1136
Dactylococcopsis acicularis	227
Dactylococcopsis fascicularis	341
Lyngbya limnetica	1818
Lyngbya nana	3408
Merismopedia punctata	1363
Merismopedia tenuissima	10792
Oscillatoria angustissima	4317
Pseudoanabaena sp.	6930
Romeria sp.	9429
Synechococcus lineare	681
Synechococcus lineare var. spirale	3408
Synechococcus sp.	1818
EUGLENOPHYTA (euglenoid algae)	
Euglena acus	227
Trachelomonas volvocina	114
CRYPTOPHYTA (cryptomonads)	
Cryptomonas sp.	227
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Cyclotella meneghiniana	227
Melosira italica ?	682
Stephanodiscus sp.	14
Order Pennales	
Amphora perpusilla	7
Anomoeoneis vitrea	28
Diploneis sp.	14
Nitzschia fonticola	57
Nitzschia palea	341
Nitzschia paleacea	57
Nitzschia sp.	170
Synedra sp.	28

08105700 SAN GABRIEL RIVER AT LANEPORT, TX

LOCATION.--Lat 30°41'39", long 97°16'43", Williamson County, Hydrologic Unit 12070205, on right bank at upstream side of county bridge, 0.2 north of Laneport, 3.4 mi downstream from Willis Creek, 7.5 mi northwest of Thrall, and 26.2 mi upstream from mouth.

DRAINAGE AREA.--738 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1965 to current year.

REVISED RECORDS.--WRD TX-74-1: 1965(M), 1966(P), 1967(M), 1968, 1969(P), 1973(P). WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 412.60 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: May 5-7, 25-28, and June 2-11. Records good. Flow partly regulated by Granger Lake (station 08105600) since Jan. 21, 1980. Gage-height telemeter at station.

AVERAGE DISCHARGE.--14 years (water years 1966-79) unregulated, 289 ft^3/s (209,400 acre-ft/yr); 7 years (water years 1980-86) regulated, 206 ft^3/s (149,200 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,200 ft^3/s Oct. 31, 1974 (gage height, 30.80 ft); no flow Aug. 21 to Oct 6, and Oct. 13-15, 1985.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1910, occurred during September 1921, 39.6 ft; in April 1957, 34.6 ft; and in October 1959, 33.8 ft; from floodmarks at present site and datum. Discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,600 ft^3/s Feb. 13 at 1330 hours (gage height, 13.23 ft); minimum daily, 0.10 ft^3/s Oct. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.16	8.9	301	274	101	241	138	101	270	58	.51	4.6
2	.10	9.1	453	204	101	242	150	97	267	56	.54	4.2
3	.20	8.1	607	142	89	242	150	97	262	55	.49	3.5
4	1.1	7.8	609	141	14	241	151	97	262	55	.38	2.8
5	1.3	7.9	824	140	5.8	241	152	121	260	55	.33	2.9
6	1.1	8.2	989	140	3.4	242	152	153	258	55	.28	8.2
7	.92	8.7	971	172	2.9	243	152	157	260	54	.28	4.0
8	.92	9.3	963	275	2.7	240	153	158	567	52	.33	3.1
9	.92	9.0	784	272	2.5	240	152	158	1020	52	.39	8.9
10	.92	8.2	270	272	687	312	152	161	1020	52	.45	29
11	1.2	10	226	271	2110	391	90	160	1020	52	1.0	29
12	1.1	11	16	269	2290	391	4.7	160	1030	52	.74	29
13	.92	11	168	139	2440	331	3.1	160	1030	52	.38	29
14	3.9	11	587	5.7	2550	151	2.6	160	1020	52	.30	29
15	13	6.0	582	3.5	2510	149	2.1	162	1020	43	.24	29
16	1.6	7.4	859	3.1	2490	149	2.1	162	1020	32	.28	37
17	1.4	9.9	1320	40	2420	150	1.9	165	913	31	.37	49
18	3.2	41	1300	163	2420	150	1.7	164	696	31	.53	49
19	13	108	1590	166	2320	148	1.8	163	695	31	.66	49
20	3.3	108	1940	167	2020	148	1.9	188	700	31	.58	49
21	2.1	108	2090	167	1730	148	1.7	265	685	31	.58	50
22	95	108	2020	205	2010	148	1.5	265	486	32	.58	50
23	300	108	1960	305	1960	149	1.5	265	183	30	.61	68
24	434	109	1720	305	1600	150	1.5	265	106	30	.83	90
25	589	111	1500	305	1200	150	1.5	286	137	29	.54	90
26	586	109	1470	304	739	151	1.4	265	170	29	.37	90
27	583	129	1310	198	244	150	1.3	262	120	29	17	91
28	388	115	943	101	242	150	37	260	58	22	3.6	92
29	161	142	604	101	---	151	93	258	58	8.2	3.3	91
30	160	281	[illegible]	101	---	150	95	258	57	1.7	2.7	90
31	92	---	278	101	---	151	---	259	---	.72	2.4	---
TOTAL	3440.36	1728.5	29539	5452.3	34304.3	6290	1849.3	5852	15650	1193.62	41.57	1251.2
MEAN	111	57.6	953	176	1225	203	61.6	189	522	38.5	1.34	41.7
MAX	589	281	2090	305	2550	391	153	286	1030	58	17	92
MIN	.10	6.0	16	3.1	2.5	148	1.3	97	57	.72	.24	2.8
AC-FT	6820	3430	58590	10810	68040	12480	3670	11610	31040	2370	82	2480

CAL YR 1985 TOTAL 114405.54 MEAN 313 MAX 2090 MIN .04 AC-FT 226900
WTR YR 1986 TOTAL 106592.15 MEAN 292 MAX 2550 MIN .10 AC-FT 211400

08105700 SAN GABRIEL RIVER AT LANEPORT, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: July 1972 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: December 1976 to March 1982.

INSTRUMENTATION.-- Water temperature was recorded continuously from December 1976 to March 1982.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum daily, 37.5°C July 9, 1978; minimum daily, 1.5°C Jan. 28, 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3
OCT 17...	1610	0.92	320	7.40	24.0	25	28	5.2	62	1.2	140	28
DEC 19...	1440	1890	334	8.00	10.5	25	61	13.4	120	1.5	150	18
MAR 18...	1330	121	390	8.20	19.0	20	26	8.6	94	1.5	180	24
APR 29...	1450	83	395	7.90	24.0	5	30	5.9	71	1.6	180	23
JUL 09...	1420	78	349	7.70	30.0	5	1.8	7.7	--	2.0	150	17
AUG 22...	1250	0.49	641	7.40	26.0	5	10	6.5	81	0.8	280	43

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
OCT 17...	45	6.5	12	0.5	3.4	111	24	14	0.2	8.7	180
DEC 19...	47	6.9	11	0.4	3.1	128	17	16	0.2	7.5	190
MAR 18...	59	8.7	10	0.3	2.4	159	32	13	0.3	2.8	220
APR 29...	55	9.6	11	0.4	2.5	154	23	17	0.2	1.5	210
JUL 09...	44	8.8	12	0.4	2.6	129	21	15	0.3	7.1	190
AUG 22...	87	15	28	0.8	2.3	236	51	22	0.3	13	360

DATE	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	SOLIDS, VOLATILE, SUSPENDED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DISSOLVED (UG/L AS AS)
OCT 17...	30	13	0.68	0.02	0.70	0.09	0.51	0.6	0.04	3.8	4
DEC 19...	198	51	0.78	0.02	0.80	0.04	0.66	0.7	0.06	3.6	--
MAR 18...	40	7	1.17	0.03	1.20	<0.01	--	0.6	0.03	4.1	--
APR 29...	40	8	1.05	0.05	1.10	0.07	0.43	0.5	0.05	9.0	--
JUL 09...	28	--	0.38	0.02	0.40	0.01	0.49	0.5	0.04	3.6	4
AUG 22...	17	15	4.46	0.04	4.50	0.04	0.66	0.7	0.04	2.5	1

DATE	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)
OCT 17...	46	<1	<10	4	19	<1	9	<0.1	<1	<1	9
DEC 19...	--	--	--	--	--	--	--	--	--	--	--
MAR 18...	--	--	--	--	--	--	--	--	--	--	--
APR 29...	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	55	2	<10	1	9	<5	3	<0.1	<1	<1	12
AUG 22...	71	<1	<10	<1	<3	<5	1	<0.1	1	<1	19

08106310 SAN GABRIEL RIVER NEAR ROCKDALE, TX

LOCATION.--Lat 30°43'29", long 97°02'19", Milam County, Hydrologic Unit 12070204, on left bank at downstream side of Farm Road 486, 1.2 mi downstream from Brushy Creek, 4.3 mi upstream from mouth, and 5.3 mi north of Rockdale.

DRAINAGE AREA.--1,359 mi^2.

PERIOD OF RECORD.--October 1974 to current year. Prior to October 1980, gage-height record only (not published).

GAGE.--Water-stage recorder. Datum of gage is 311.59 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Nov. 27 to Dec. 2, and Feb. 10-12. Records good, except those for periods of discharges, which are fair. Flow is largely regulated by Granger Lake (station 08105600). Flow is affected at times by discharge from the flood-detention pools of 46 floodwater-retarding structures with a combined detention capacity of 46,140 acre-ft. These structures control runoff from 144 mi^2 in the Brushy Creek drainage basin. A U.S. Army Corps of Engineers satellite telemeter located at station. Several observations of water temperature were made durin the year. Backwater from Little River occurs at times.

AVERAGE DISCHARGE.--6 years, 424 ft^3/s (307,200 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 32.91 ft July 27, 1979 (discharge not determined, but may have been in backwater from Little River). Maximum discharge, 15,600 ft^3/s June 14, 1981 (gage height, 32.11 ft); miniumum daily 0.08 ft^3/s July 13, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,190 ft^3/s, Nov. 28 at about 1100 hours (gage height, 22.73 ft, from floodmark); minimum daily, 2.0 ft^3/s Aug. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	60	1160	386	148	361	196	393	593	90	6.6	7.8
2	14	35	979	368	147	357	178	1030	1540	86	5.6	9.5
3	8.9	34	874	233	724	355	195	302	747	82	4.7	17
4	6.5	44	841	227	2750	350	197	207	1080	83	4.4	24
5	5.1	46	857	219	1610	349	196	171	658	87	3.9	13
6	4.8	41	1130	217	811	347	197	224	532	82	6.8	25
7	4.0	35	1100	214	655	352	197	220	603	73	11	804
8	3.5	31	1070	330	471	350	196	216	1080	70	7.0	290
9	3.3	31	1060	365	346	344	192	211	1180	70	5.9	122
10	3.5	30	516	370	278	364	194	220	1340	68	5.0	64
11	3.8	31	1690	371	2090	538	190	451	1560	68	59	70
12	3.9	29	3350	366	2770	541	69	298	2790	64	30	56
13	5.1	35	1120	344	2790	539	40	254	1700	61	14	69
14	5.4	44	917	112	3090	289	35	231	1300	59	7.1	157
15	302	42	1020	77	3090	230	32	579	1210	57	4.7	139
16	512	41	983	74	3060	227	28	490	1170	44	4.1	58
17	53	63	1410	81	3010	223	27	527	1980	36	3.5	58
18	25	79	1360	268	2980	220	26	2240	1490	35	2.8	61
19	60	104	1370	261	2910	213	25	1180	1030	34	2.4	58
20	1070	137	1740	251	2770	212	24	513	908	33	2.2	57
21	782	159	1950	246	2010	210	23	463	883	33	2.2	56
22	312	154	1920	241	2390	207	23	435	789	32	2.0	56
23	402	143	1870	356	2310	205	23	407	389	31	3.2	81
24	435	140	1780	379	2170	205	21	389	199	30	3.5	102
25	705	548	1500	379	1440	204	19	1940	186	30	5.4	105
26	704	890	1470	376	1280	203	18	3120	246	30	10	103
27	692	1800	1450	356	401	201	18	885	240	30	6.9	100
28	659	4530	1070	160	369	201	17	644	121	29	7.9	99
29	210	2510	937	152	---	200	62	562	103	23	11	102
30	181	1460	412	151	---	198	103	502	96	13	13	98
31	176	---	393	150	---	197	---	520	---	9.7	7.8	---
TOTAL	7381.8	13326	39299	8080	48870	8992	2761	19824	27743	1572.7	263.6	3061.3
MEAN	238	444	1268	261	1745	290	92.0	639	925	50.7	8.50	102
MAX	1070	4530	3350	386	3090	541	197	3120	2790	90	59	804
MIN	3.3	29	393	74	147	197	17	171	96	9.7	2.0	7.8
AC-FT	14640	26430	77950	16030	96930	17840	5480	39320	55030	3120	523	6070

CAL YR 1985 TOTAL 184554.3 MEAN 506 MAX 4590 MIN 2.4 AC-FT 366100
WTR YR 1986 TOTAL 181174.4 MEAN 496 MAX 4530 MIN 2.0 AC-FT 359400

08106350 LITTLE RIVER NEAR ROCKDALE, TX

LOCATION.--Lat 30°45'38", long 97°00'49", Milam County, Hydrologic Unit 12070204, on right bank downstream from Alcoa pumping station, 200 ft downstream from mouth of San Gabriel River, and 6.8 mi north of Rockdale.

DRAINAGE AREA.--6,959 mi².

PERIOD OF RECORD.--February 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 299.12 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Daily discharges are not published above 1,000 ft³/s. There are numerous diversions for irrigation and municipal supply above station. For statement regarding regulations by the Soil Conservation Service floodwater-retarding structures, see station No. 08106310. The Aluminum Co. of America diverts water from Little River to their plant reservoir. Satellite telemetry at station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 35.67 ft June 15, 1981 (maximum discharge not determined); minimum daily, 13 ft³/s May 9, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 33.08 ft Feb. 5 (maximum discharge not determined); minimum daily discharge, 43 ft³/s Oct. 11.

CORRECTIONS.--Corrected figures of discharge for water year 1985, superseding those published in the report for 1985 are given below.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	454	---			---	---	403	---			---	101
2	147	---			755	---	377	---			---	397
3	91	---			---	---	370	---			---	366
4	72	---			---	---	476	483			---	436
5	75	---			---	---	575	366			---	760
6	70	710			---	---	584	370			---	---
7	52	681			---	---	580	607			---	---
8	49	626			---	---	577	660			---	---
9	48	325			---	---	572	661			---	---
10	56	244			---	994	585	---			---	---
11	43	202			---	---	510	---			---	---
12	55	214			---	---	347	---			---	---
13	77	220			---	---	241	---			956	---
14	64	222			---	---	228	---			624	---
15	---	195			---	653	210	---			316	---
16	---	206			---	614	209	---			279	---
17	249	303			---	584	189	---			264	---
18	135	303			---	568	173	---			259	---
19	---	339			---	567	172	---			257	---
20	---	339			---	567	178	---			240	---
21	---	520			---	530	173	---			233	---
22	777	534			---	522	178	---			230	---
23	---	524			---	521	155	---			237	---
24	---	---			---	504	153	---			210	---
25	---	---			---	496	149	---			211	---
26	---	---			---	452	131	---			204	---
27	---	---			---	436	132	---			199	---
28	---	---			---	415	129	---			192	---
29	---	---			---	429	171	---			427	---
30	---	---			---	415	229	---			207	---
31	---	---			---	397	---	---			123	---
TOTAL	---	---			---	---	9156	---			---	---
MEAN	---	---			---	---	305	---			---	---
MAX	---	---			---	---	585	---			---	---
MIN	---	---			---	---	129	---			---	---
AC-FT	---	---			---	---	18160	---			---	---

CAL YR 1985 TOTAL - MEAN - MAX - MIN - AC-FT -
WTR YR 1986 TOTAL - MEAN - MAX - MIN - AC-FT -

08106500 LITTLE RIVER AT CAMERON, TX

LOCATION.--Lat 30°49'53", long 96°57'01", Milam County, Hydrologic Unit 12070204, on right bank at site of old McCowan Bridge, 2,020 ft upstream from bridge on U.S. Highway 77, 1.1 mi upstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 2 mi southeast of Cameron, and 33.6 mi upstream from mouth.

DRAINAGE AREA.--7,065 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1916 to current year.

REVISED RECORDS.--WSP 718: 1918-20, 1922. WSP 1512: 1918-20(M), 1921, 1922(M), 1924(M), 1926, 1929-30, 1934, 1935(M), 1936, 1940(M), 1941, 1944-45(M). WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 281.89 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Nov. 2, 1916, to Sept. 30, 1922, nonrecording gage at site 1.8 mi upstream at different datum. Oct. 1, 1922, to Apr. 8, 1926, nonrecording gage at McCowan Bridge 30 ft downstream at same datum. Apr. 9, 1926, to Oct. 9, 1933, nonrecording gage at bridge on U.S. Highway 77, 2,020 ft downstream at 1.58 ft lower datum.

REMARKS.--No estimated daily discharges. Records good. Many small diversions for irrigation and municipal supply affect low flows. Since 1954, at least 10 percent of the drainage area has been regulated by upstream reservoirs. There is some regulation by Belton Lake (station 08102000) on Leon River beginning Mar. 8, 1954 and by Stillhouse Hollow Lake (station 08104050) on the Lampasas River beginning Sept. 2, 1968. The Aluminum Co. of America diverts water 10.9 mi upstream from the gage for use at their Rockdale plant. The city of Cameron diverts water 2.1 mi upstream from the gage. Treated effluent is returned to the river upstream from gage. Flow is affected at times by discharge from the flood-detention pools of 65 floodwater-retarding structures with a combined detention capacity of 68,500 acre-ft. These structures control runoff from 209 mi² in the Nolan, Donahoe, and Brushy Creeks drainage basins. Satellite telemeter at station.

AVERAGE DISCHARGE.--36 years (water years 1918-53) unregulated, 1,807 ft³/s (1,309,000 acre-ft/yr); 33 years (water years 1954-86) regulated, 1,541 ft³/s (1,116,000 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 647,000 ft³/s Sept. 10, 1921 (gage height, 53.2 ft, present datum, from floodmark), from rating curve extended above 110,000 ft³/s on basis of slope-area measurement of 647,000 ft³/s; no flow July 12-27, 1956.
Maximum stage since 1852, that of Sept. 10, 1921.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1852 reached about the same stage as that of Sept. 10, 1921. Flood in December 1913 reached a stage of 49.0 ft. Stages based on information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22,500 ft³/s Feb. 5 at 0800 hours (gage height, 33.01 ft); minimum daily, 28 ft³/s Oct. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	555	2140	1350	1630	1450	1690	407	430	1670	2880	2510	144
2	198	2000	1190	1600	895	1680	388	2260	2490	2850	2300	279
3	120	1230	1310	1460	1340	1660	378	1050	2320	2850	1680	491
4	93	1090	1830	1440	12600	1650	441	526	2850	2850	1590	376
5	87	997	1900	1420	19300	1640	573	400	3090	2840	1580	737
6	82	716	2150	1410	6000	1620	580	369	2150	2820	1570	972
7	68	666	2120	1410	2380	1630	577	552	2510	2800	1580	3210
8	57	636	1720	1470	1770	1540	568	658	3330	2800	1560	1890
9	49	372	1630	1550	1430	1070	567	659	3810	2810	1460	989
10	52	265	1290	1550	1310	1010	585	745	3720	2780	1020	1890
11	58	234	5480	1540	2660	1110	511	2470	3780	2760	1010	2360
12	28	220	12900	1530	5310	1120	402	1520	6200	2740	1030	2700
13	99	236	6640	1510	5630	1120	257	995	5810	2870	980	2730
14	69	237	2500	1360	5850	841	227	2120	4050	2880	699	2810
15	174	219	2130	1280	5890	643	223	2650	3770	2880	368	2870
16	1420	200	1880	1280	5850	600	202	2920	3650	2760	311	2730
17	375	311	2160	1280	5790	582	199	2170	4090	2700	297	2720
18	156	282	2160	1440	5740	569	174	3950	5210	2670	290	2710
19	247	333	2030	1440	5670	560	172	3530	3340	2670	288	2690
20	3270	359	2450	1430	5540	571	179	1840	3950	2800	271	2800
21	2990	442	2700	1400	4970	525	175	1520	3650	2860	265	2970
22	845	516	2740	1390	4880	516	180	1110	3490	2850	264	3030
23	746	509	2650	1440	4300	517	162	1020	3120	2850	270	2950
24	1460	482	2590	1710	4150	502	149	1060	2910	2840	253	2530
25	1950	2840	2920	2470	3530	492	159	2410	3000	2830	248	2420
26	2700	2170	2930	2510	3370	460	136	4220	3050	2760	242	2280
27	2740	2660	2900	2510	2430	439	135	2340	3070	2580	239	2160
28	2710	10300	2540	2240	1750	420	135	1690	2990	2560	233	1800
29	2350	6090	2350	1790	---	424	148	1590	2920	2540	396	1770
30	2230	1790	1770	1620	---	426	232	1520	2890	2530	290	1630
31	2220	---	1670	1580	---	403	---	1450	---	2520	174	---
TOTAL	30198	40542	84580	49690	131785	28030	9221	51744	102880	85730	25348	61638
MEAN	974	1351	2728	1603	4707	904	307	1669	3429	2765	818	2055
MAX	3270	10300	12900	2510	19300	1690	585	4220	6200	2880	2510	3210
MIN	28	200	1190	1280	895	403	135	369	1670	2520	174	144
AC-FT	59900	80420	167800	98560	261400	55600	18290	102600	204100	170000	50280	122300

CAL YR 1985 TOTAL 439015 MEAN 1203 MAX 13100 MIN 16 AC-FT 870800
WTR YR 1986 TOTAL 701386 MEAN 1922 MAX 19300 MIN 28 AC-FT 1391000

08106500 LITTLE RIVER AT CAMERON, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: October 1959 to September 1974. Chemical and biochemical analyses: January 1968 to current year. Sediment analyses: February 1978 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1959 to current year.
WATER TEMPERATURES: October 1959 to current year.

REMARKS.--Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the Geological Survey District office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,280 microsiemens Sept. 25, 26, 1963; minimum daily, 154 microsiemens Sept. 13, 1974.
WATER TEMPERATURES: Maximum daily, 33.0°C Aug. 6, 1964, Aug. 1, 1969; minimum daily, 0.0°C Dec. 25, 26, 29, 30, 1983.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 730 microsiemens Apr. 27; minimum daily, 259 microsiemens Oct. 20.
WATER TEMPERATURES: Maximum daily, 28.5°C Aug. 19, 20, 21; minimum daily, 7.0°C Dec. 14, 16.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 23...	1400	669	399	8.00	21.5	550	8.6	98	1.4	2300	--
JAN 13...	1547	1430	455	7.80	9.5	52	11.2	--	0.8	210	110
FEB 26...	0800	3.0	428	8.20	14.0	130	10.3	101	0.8	100	400
APR 14...	1415	223	649	7.70	22.0	21	9.4	109	1.1	28	200
JUN 02...	1625	3080	406	7.40	24.0	430	8.2	99	2.3	8400	26000
JUL 30...	1120	2640	374	8.00	26.0	--	7.8	97	0.8	42	740

DATE	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 23...	150	19	49	5.6	17	0.6	3.5	127	29	21	0.2
JAN 13...	170	24	51	10	23	0.8	3.4	145	18	43	0.3
FEB 26...	170	18	52	10	20	0.7	3.1	154	16	31	0.4
APR 14...	250	25	77	15	43	1	3.4	229	45	48	0.3
JUN 02...	150	23	49	5.7	23	0.9	3.5	123	29	24	0.3
JUL 30...	150	8	47	7.1	18	0.7	3.8	139	20	24	0.2

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)
OCT 23...	10	214	210	1.23	1.28	0.07	0.02	1.30	1.30	0.17
JAN 13...	5.4	259	240	0.98	0.98	0.02	0.02	1.00	1.00	0.03
FEB 26...	6.0	233	230	0.88	0.89	0.02	0.02	0.90	0.91	0.03
APR 14...	8.9	381	380	1.86	1.86	0.04	0.04	1.90	1.90	0.07
JUN 02...	7.9	239	220	1.06	0.99	0.04	0.01	1.10	1.00	0.06
JUL 30...	6.0	210	210	0.36	0.33	0.04	0.03	0.40	0.36	0.04

08106500 LITTLE RIVER AT CAMERON, TX--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT										
23...	0.08	0.53	0.7	0.41	0.16	0.14	0.43	473	854	96
JAN										
13...	0.02	0.47	0.5	0.12	0.06	0.06	0.18	90	347	96
FEB										
26...	0.04	0.87	0.9	0.07	0.04	0.03	0.09	391	3.2	84
APR										
14...	0.08	0.53	0.6	0.36	0.34	0.30	0.92	35	21	99
JUN										
02...	0.05	1.1	1.2	0.78	0.14	0.11	0.34	1310	10900	97
JUL										
30...	0.02	0.36	0.4	0.08	0.12	0.05	0.15	321	2290	78

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
OCT										
23...	20	4	46	<0.5	<1	<1	<3	1	21	1
JAN										
13...	--	--	--	--	--	--	--	--	--	--
FEB										
26...	<10	2	42	<0.5	<1	<1	<3	2	4	<1
APR										
14...	--	--	--	--	--	--	--	--	--	--
JUN										
02...	--	--	--	--	--	--	--	--	--	--
JUL										
30...	20	3	49	<0.5	<1	<1	<3	1	11	<5

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
OCT										
23...	7	<1	<0.1	<10	1	<1	<1	320	7	49
JAN										
13...	--	--	--	--	--	--	--	--	--	--
FEB										
26...	11	<1	<0.1	<10	<1	<1	<1	540	<6	14
APR										
14...	--	--	--	--	--	--	--	--	--	--
JUN										
02...	--	--	--	--	--	--	--	--	--	--
JUL										
30...	7	2	0.1	<10	6	<1	<1	360	<6	37

MONTHLY AND ANNUAL MEANS AND LOADS FOR OCTOBER 1985 TO SEPTEMBER 1986

MONTH YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED SOLIDS (MG/L)	DISSOLVED SOLIDS (TONS)	DISSOLVED CHLORIDE (MG/L)	DISSOLVED CHLORIDE (TONS)	DISSOLVED SULFATE (MG/L)	DISSOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT. 1985	30198	407	222	18100	28	2260	26	2090	160
NOV. 1985	40542	391	214	23400	27	2910	25	2690	150
DEC. 1985	84580	401	219	49900	27	6190	25	5680	160
JAN. 1986	49690	458	251	33700	31	4220	30	3990	180
FEB. 1986	131785	388	212	75300	26	9320	24	8460	150
MAR. 1986	28030	524	289	21900	37	2780	36	2730	200
APR. 1986	9221	622	347	8650	45	1120	47	1160	230
MAY 1986	51744	414	226	31600	28	3930	26	3630	160
JUNE 1986	102800	413	226	62700	28	7790	26	7160	160
JULY 1986	85730	398	217	50200	27	6220	24	5660	160
AUG. 1986	25348	405	221	15100	27	1880	25	1720	160
SEPT 1986	61638	347	188	31300	23	3840	20	3380	140
TOTAL	701386	**	**	422000	**	52400	**	48300	**
WTD.AVG.	1922	408	223	**	28	**	26	**	160

08106500 LITTLE RIVER AT CAMERON, TX--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
EQUIVALENT MEAN

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	540	453	447	460	413	475	600	663	350	428	375	499
2	450	450	476	461	440	482	601	515	406	427	374	482
3	388	464	468	464	425	493	603	460	398	425	388	515
4	420	503	506	474	360	495	604	385	409	424	383	482
5	455	519	434	476	284	494	610	429	343	423	382	358
6	465	541	400	473	380	496	596	522	382	422	379	379
7	464	535	406	472	430	496	560	526	396	419	380	349
8	460	546	415	470	456	494	564	540	435	417	382	301
9	472	556	418	459	483	501	563	509	429	419	380	325
10	507	572	438	463	519	519	560	460	422	420	397	363
11	546	574	420	460	510	530	559	390	441	419	402	395
12	570	578	300	468	426	514	563	430	413	404	397	390
13	587	580	297	465	380	516	603	415	365	400	395	363
14	602	604	432	464	384	510	660	430	438	399	402	355
15	580	640	440	475	389	569	694	391	449	398	422	362
16	405	646	446	479	386	590	704	408	450	385	453	330
17	342	613	439	480	388	587	694	420	420	379	476	321
18	350	643	442	503	399	583	703	390	375	378	505	326
19	320	612	441	488	386	582	704	381	419	378	503	334
20	250	618	409	470	390	583	702	410	410	375	502	336
21	264	566	404	460	409	582	710	425	413	382	501	326
22	305	530	412	468	397	580	715	440	417	380	500	330
23	358	538	415	465	413	579	714	467	424	379	502	332
24	445	535	418	458	414	576	726	476	429	380	503	347
25	444	401	450	432	435	571	729	439	427	378	501	343
26	443	358	432	433	442	570	727	312	428	391	502	336
27	443	329	414	432	454	569	730	375	427	385	540	331
28	442	275	429	431	467	574	724	387	425	384	538	343
29	459	310	431	432	---	580	725	400	424	382	535	336
30	464	400	450	430	---	589	705	402	426	380	520	338
31	458	---	468	416	---	587	---	405	---	379	531	---
MEAN	446	517	426	461	418	544	655	440	413	398	450	365

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	16.5	13.0	11.0	15.0	---	20.5	23.0	22.0	23.0	25.5	26.0
2	17.0	16.5	10.0	10.0	16.0	---	20.5	21.0	21.5	23.0	25.5	---
3	18.0	15.5	10.0	10.5	17.0	15.0	20.5	20.0	22.0	23.0	26.5	26.0
4	19.5	15.0	11.0	11.0	17.0	13.5	20.5	20.5	22.5	24.0	25.5	26.5
5	19.0	15.5	11.5	10.0	14.5	13.5	21.5	22.0	22.5	24.0	25.5	26.5
6	18.5	15.0	12.0	10.0	16.5	14.0	22.0	23.0	23.5	24.0	25.5	25.5
7	18.0	15.0	12.5	10.5	15.0	14.0	21.5	23.0	24.0	23.0	25.5	25.0
8	20.0	15.5	14.5	9.0	13.0	15.5	22.0	23.0	22.0	23.0	25.5	24.0
9	21.5	16.5	15.0	8.5	11.5	16.0	21.0	23.0	22.5	23.5	26.0	25.0
10	22.0	20.5	16.0	8.0	10.0	17.5	19.0	22.0	23.0	23.5	27.0	25.0
11	23.0	18.0	14.0	8.0	8.0	19.0	17.5	20.5	22.5	24.0	26.5	25.5
12	24.0	19.0	9.0	10.0	9.0	17.0	19.0	22.0	22.5	24.0	26.5	25.0
13	25.5	19.5	8.0	10.0	10.0	17.0	20.5	23.5	23.5	24.5	26.0	25.5
14	25.0	20.5	7.0	10.0	11.0	15.5	21.5	23.0	23.5	24.0	27.0	25.5
15	23.5	20.0	8.0	10.0	11.0	16.0	19.5	19.0	23.0	24.0	26.5	25.5
16	22.0	18.0	7.0	11.5	14.0	17.0	19.5	19.5	23.0	24.0	27.0	25.0
17	22.0	17.0	8.0	12.0	14.0	17.0	20.5	20.0	23.0	24.0	27.0	25.5
18	23.0	19.0	9.0	13.0	13.0	17.5	21.0	19.0	22.5	24.0	27.5	26.0
19	22.0	20.0	8.5	13.5	14.0	17.0	22.0	18.0	23.5	24.5	28.5	26.0
20	21.5	17.0	9.0	12.5	14.0	16.0	20.0	18.5	22.5	24.5	28.5	25.5
21	21.0	15.0	10.5	13.0	10.5	15.5	20.5	20.0	23.0	24.5	28.5	26.0
22	21.0	15.0	10.0	13.0	11.5	15.0	20.0	21.0	23.0	24.5	27.5	26.0
23	22.0	17.0	10.0	12.0	12.0	16.0	20.5	22.0	22.0	24.5	26.0	26.0
24	22.0	16.0	10.0	11.5	12.5	16.5	21.5	24.0	22.0	24.5	26.0	26.0
25	21.0	18.0	9.5	12.5	13.0	17.0	22.5	24.0	22.0	24.5	25.5	26.0
26	20.0	19.0	9.0	11.5	14.0	18.0	23.5	22.5	22.0	25.0	26.5	26.0
27	18.5	19.0	10.0	10.0	---	18.5	24.0	22.0	23.0	25.5	27.0	26.5
28	18.5	15.5	10.0	10.0	---	19.0	22.0	20.0	23.0	25.0	27.0	27.0
29	17.0	18.5	10.5	11.5	---	19.5	24.0	20.0	23.0	25.0	25.0	26.5
30	16.5	15.0	11.0	11.5	---	20.0	24.0	22.0	23.0	25.0	25.0	26.5
31	16.0	---	11.0	13.0	---	20.0	---	21.0	---	25.5	25.5	---
MEAN	20.5	17.5	10.5	11.0	13.0	16.5	21.0	21.5	22.5	24.0	26.5	26.0

08109000 BRAZOS RIVER NEAR BRYAN, TX

LOCATION (REVISED).--Lat 30°36'50", long 96°29'11", Brazos-Burleson County line, Hydrologic Unit 12070101, on left bank 2.4 mi downstream from Little Brazos River, 5 mi downstream from Texas and New Orleans Railroad Co. bridge, 9 mi southwest of Bryan, and at mile 281.1.

DRAINAGE AREA.--39,515 mi², approximately, of which 9,566 mi² probably is noncontributing.

PERIOD OF RECORD.--August 1899 to December 1902, February 1918 to January 1926, June 1926 to current year. Monthly figures only for some periods, published in WSP 1312. Prior to September 1925, published as "near College Station".

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 192.33 ft above National Geodetic Vertical Datum of 1929. Aug. 1, 1899, to Dec. 31, 1902, and Feb. 23, 1918, to Sept. 17, 1925, nonrecording gage at site 7.5 mi downstream at different datum. Sept. 11, 1925, to Oct. 24, 1932, nonrecording gage at site 3,000 ft upstream at present datum.

REMARKS.--Estimated daily discharges: July 11-17. Records good except those for estimated daily discharges, which are fair. Flow is partly regulated by four upstream reservoirs with a combined capacity of 4,447,600 acre-ft, of which 3,200,800 acre-ft is for flood control. Many small diversions above station for irrigation, municipal, industrial, and oilfield operation. Flow is affected at times by discharge from the flood-detention pools of 145 floodwater-retarding structures with a combined detention capacity of 152,800 acre-ft. These structures control runoff from 450 mi². Since 1941, at least 10 percent of drainage area is regulated by upstream reservoirs. Several observations of water temperature were made during the year. Satellite telemeter at station.

AVERAGE DISCHARGE.--24 years (water years 1900-1902, 1919-25, 1927-40) unregulated, 5,652 ft³/s (4,095,000 acre-ft/yr); 46 years (water years 1941-86) regulated, 4,798 ft³/s (3,476,000 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 54 ft Sept. 12, 1921, present site and datum (discharge not determined); minimum daily, 89 ft³/s Aug. 24, 1934.
Maximum stage since at least 1854, that of Sept. 12, 1921.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 5, 1913, reached a stage of 51 ft, present site and datum, from information by Texas and New Orleans Railroad Co. at their bridge 5 mi upstream and from comparison of maximum stages reached by floods in 1913 and 1921 at gage near College Station. Flood in 1854 reached about the same stage as flood of Dec. 5, 1913.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 62,500 ft³/s Feb. 5 at 1100 hours (gage height, 28.92 ft); minimum daily, 419 ft³/s Oct. 10-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2800	3560	8940	2700	2430	3490	1190	3310	3610	5200	3560	883
2	3610	3520	6420	2950	2170	3280	1040	16800	4090	5300	3440	1060
3	1970	3370	4800	3470	1760	3290	964	13700	9120	5550	3280	777
4	1080	2590	4210	3490	26600	3270	1180	7380	8450	4520	2750	963
5	731	2420	4170	3390	60100	3150	1150	5210	7790	4140	2590	871
6	577	2290	3970	3100	45100	3160	1280	3400	7890	4340	2560	3710
7	579	2030	4090	2920	21100	2970	1370	2450	12000	4120	2400	5120
8	495	1900	3840	3080	13900	2680	1330	3000	19200	3950	2300	9270
9	432	1690	3350	3120	9930	2470	1160	2990	18100	3920	3240	7200
10	419	1410	3060	3120	8870	2030	1190	2880	13400	3910	2130	4680
11	419	1480	5180	3340	8510	1840	2300	8590	12400	4030	1650	5310
12	574	1600	36300	3150	9220	1920	3350	12600	20900	3900	1940	6880
13	600	1780	39500	2500	10400	2040	2090	8050	29400	3890	2020	6980
14	484	1690	21400	2350	10100	2370	1400	6600	22900	3880	1760	6680
15	980	1480	12500	2300	9840	2310	1060	7240	18400	3890	1310	6670
16	672	1230	9190	2280	9320	2080	1230	6640	16300	3890	1110	6710
17	2510	1220	6860	2610	8410	1840	1850	6210	15900	3860	1270	6610
18	2140	1290	6320	2790	8200	1760	1930	11000	17800	3940	1260	6590
19	1290	1370	6270	2680	8060	1810	1530	13500	17200	4440	1250	6580
20	1630	1300	6150	2980	7960	2150	1380	8640	14300	4210	1210	6570
21	12700	1460	6540	3570	7720	2620	1170	4980	13500	3540	1240	5940
22	11300	1340	6450	2780	6940	2200	1060	3720	10200	3620	1220	5560
23	5860	1210	5990	2400	6820	1510	1080	3510	9540	4050	1220	5490
24	4410	1490	5510	2320	6030	1240	1020	3500	9360	4920	1200	4350
25	3430	22100	5320	2730	5410	1190	1100	3710	9010	4330	874	3680
26	3590	19500	5280	3460	4740	1150	1130	4570	7310	4480	1020	3670
27	4080	12400	4950	3340	4630	1070	1130	5690	6300	4000	792	3630
28	4820	25600	4790	3200	4670	1320	1110	3860	6080	3620	1040	3500
29	4140	29400	4060	2960	---	1310	857	3340	5520	3540	1510	3180
30	3480	16400	3550	2900	---	1070	756	3260	5330	3550	1550	2880
31	3470	---	3010	2780	---	1110	---	3300	---	3430	1350	---
TOTAL	85281	170210	251970	90770	329140	65700	40387	193630	371300	127970	56126	141994
MEAN	2751	5674	8128	2928	11760	2119	1346	6246	12380	4128	1811	4733
MAX	12700	29400	39500	3570	60100	3490	3350	16800	29400	5550	3560	9270
MIN	419	1210	3010	2280	1760	1070	756	2450	3610	3430	792	777
AC-FT	169200	337600	499800	180000	652800	130300	80110	384100	736500	253800	111300	281600

CAL YR 1985 TOTAL 1448312 MEAN 3968 MAX 39500 MIN 419 AC-FT 2873000
WTR YR 1986 TOTAL 1924478 MEAN 5273 MAX 60100 MIN 419 AC-FT 3817000

08109700 MIDDLE YEGUA CREEK NEAR DIME BOX, TX

LOCATION.--Lat 30°20'21", long 96°54'16", Lee County, Hydrologic Unit 12070102, on right bank 25 ft upstream from centerline of State Highway 21, 4.5 mi upstream from West Yegua Creek, 5.0 mi southwest of Dime Box, and 17.5 mi upstream from mouth.

DRAINAGE AREA.--236 mi².

PERIOD OF RECORD.--August 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 295.4 ft above State Department of Highways and Public Transportation datum. June 30 to July 21, 1970, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharge: June 12-23 and July 23-28. Records poor. Several observations of water temperature made during the year. Gage-height telemeter at station.

AVERAGE DISCHARGE.--24 years, 51.1 ft³/s (2.94 in/yr) 37,020 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,400 ft³/s May 24, 1975 (gage height, 15.16 ft); no flow at times most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1851, 16 ft in December 1913, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 26	1200	*4,260	*12.82	June 11	1900	904	10.13
June 8	1500	1,430	10.72	June 18	unknown	unknown	unknown

Minimum discharge, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.33	865	16	16	10	6.9	26	36	17	.10	.00
2	.00	.63	529	16	19	11	7.8	31	31	16	.04	.03
3	.01	.86	168	16	48	11	7.5	34	43	15	.02	1.1
4	6.2	1.2	79	17	312	10	7.0	26	39	13	.15	.56
5	4.1	1.5	54	16	307	9.9	6.6	25	42	12	.13	6.3
6	3.9	1.2	41	15	338	9.6	7.4	25	35	11	.09	8.8
7	2.3	.60	35	15	417	9.1	6.7	25	133	9.9	.04	6.6
8	.09	.28	31	14	393	9.7	6.0	25	1040	9.3	.01	21
9	.00	.09	28	15	156	9.8	5.5	23	928	9.3	.00	23
10	.00	.02	26	16	109	9.5	5.0	21	605	9.2	.00	15
11	.00	.02	37	17	84	8.9	5.4	20	736	9.1	.00	9.0
12	.00	.01	74	18	67	8.6	5.9	23	450	9.6	.00	7.3
13	.00	.02	102	16	51	8.4	5.3	20	200	9.8	.00	4.5
14	.00	.10	76	14	40	8.4	5.0	15	80	9.4	6.0	11
15	78	.65	54	14	32	9.3	4.7	19	35	9.6	7.4	6.7
16	170	3.7	40	16	26	8.3	4.4	19	15	9.3	3.5	4.7
17	127	17	34	33	27	8.0	4.0	52	45	8.3	1.5	2.7
18	116	2.4	30	34	22	8.2	4.0	125	150	7.3	.75	1.7
19	49	5.7	26	34	17	7.8	3.7	102	720	6.8	.42	1.2
20	21	4.6	23	36	14	7.5	3.9	99	610	5.6	.25	.95
21	127	2.3	21	30	13	7.3	3.6	59	470	4.5	.12	1.0
22	224	1.2	20	24	12	7.2	3.0	30	350	3.4	.04	1.5
23	152	.70	21	21	12	7.2	2.8	22	270	1.6	.03	1.7
24	111	181	21	20	11	7.6	1.2	18	54	.65	.03	1.2
25	89	981	20	19	11	8.1	.89	14	35	.57	.05	.98
26	35	3170	19	18	10	7.5	.89	30	27	.48	.06	.70
27	16	2230	18	16	10	7.1	1.4	110	23	.39	.04	.63
28	7.7	1590	17	15	10	6.8	.95	177	21	.30	.02	.70
29	3.3	1460	16	15	---	6.7	.55	155	20	.21	.01	1.2
30	1.3	1370	16	14	---	6.7	.31	70	18	.17	.00	1.2
31	.48	---	17	14	---	6.7	---	44	---	.13	.00	---
TOTAL	1344.38	11027.11	2558	594	2584	261.9	128.29	1484	7261	218.90	20.80	142.95
MEAN	43.4	368	82.5	19.2	92.3	8.45	4.28	47.9	242	7.06	.67	4.76
MAX	224	3170	865	36	417	11	7.8	177	1040	17	7.4	23
MIN	.00	.01	16	14	10	6.7	.31	14	15	.13	.00	.00
CFSM	.18	1.56	.35	.08	.39	.04	.02	.20	1.03	.03	.00	.02
IN.	.21	1.74	.40	.09	.41	.04	.02	.23	1.14	.03	.00	.02
AC-FT	2670	21870	5070	1180	5130	519	254	2940	14400	434	41	284

CAL YR 1985 TOTAL 24291.80 MEAN 66.6 MAX 3170 MIN .00 CFSM .28 IN. 3.83 AC-FT 48180
WTR YR 1986 TOTAL 27625.33 MEAN 75.7 MAX 3170 MIN .00 CFSM .32 IN. 4.35 AC-FT 54790

08109800 EAST VEGUA CREEK NEAR DIME BOX, TX

LOCATION.--Lat 30°24'26", long 96°49'02", Burleson County, Hydrologic Unit 12070102, on left bank 49 ft upstream from centerline of State Highway 21, 0.8 mi downstream from Buffalo Creek, 3.5 mi north of Dime Box, and 12.2 mi upstream from mouth.

DRAINAGE AREA.--244 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1962 to current year.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 284.00 ft State Department of Highways and Public Transportation datum. Nov. 6 to Dec, 10. 1970, nonrecording gage at present site and datum.

REMARKS.--No estimated daily discharges. Records good. Diversions above station for irrigation. Gage-height telemeter at station.

AVERAGE DISCHARGE.--24 years, 57.3 ft³/s (41,510 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,000 ft³/s May 24, 1975 (gage height, 13.91 ft); no flow at times most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1886, 17 ft in 1899 and 1957, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 26	0700	2,040	10.31	June 8	1900	*4,640	*11.67
Feb. 5	2400	1,290	9.63	June 19	0900	1,150	9.46
May 27	0400	1,500	9.84				

Minimum discharge, no flow Aug. 17-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.44	2.1	161	9.0	13	10	5.0	325	38	9.6	.04	.19
2	.14	2.3	62	9.2	13	12	9.9	286	48	8.4	.06	.43
3	.09	2.7	45	9.9	74	12	6.3	405	53	7.0	.05	.16
4	.09	3.6	33	11	259	11	5.4	166	34	6.1	.15	.26
5	.09	3.7	24	9.3	736	11	4.9	35	31	5.3	.13	.42
6	.11	3.0	18	9.0	1050	9.9	5.7	20	25	5.5	.05	1.0
7	.10	2.5	15	9.7	275	9.3	5.1	14	177	5.1	.06	.38
8	.20	2.5	13	11	68	11	4.4	11	2880	4.3	.07	17
9	.30	2.1	11	12	46	11	3.8	9.0	3180	4.0	.06	8.2
10	.37	1.6	11	14	43	11	3.6	9.3	2210	3.9	.04	12
11	.45	2.4	25	12	41	9.7	4.1	14	1340	3.2	.04	6.3
12	.45	2.6	48	11	34	10	4.4	26	657	2.9	.08	3.8
13	.40	3.0	43	11	28	8.7	3.9	18	219	2.3	.07	6.9
14	.50	2.4	33	10	25	8.7	4.0	13	68	1.9	.05	25
15	12	2.2	24	9.5	23	9.9	3.5	16	42	1.8	.04	18
16	17	4.4	17	9.6	22	8.2	3.3	52	32	1.8	.02	8.5
17	26	13	15	20	22	7.2	2.6	117	48	2.5	.00	4.4
18	13	12	14	18	19	8.0	2.5	212	268	3.6	.00	4.1
19	8.6	10	15	18	18	8.0	2.6	367	997	2.9	.00	4.2
20	7.6	6.5	13	15	18	7.1	3.2	735	352	2.7	.00	3.8
21	69	7.4	11	14	16	6.7	2.6	230	66	2.2	.00	3.8
22	57	6.2	11	14	14	6.0	2.2	42	38	1.8	.00	3.4
23	59	4.0	11	12	13	6.0	2.1	24	27	1.4	.00	2.8
24	60	30	11	13	12	6.9	2.2	18	22	.72	.50	1.8
25	21	1330	10	14	12	7.3	2.0	45	19	.41	.27	1.6
26	10	1970	9.6	14	11	6.9	1.8	316	15	.32	.07	1.6
27	5.8	1740	10	13	11	6.0	1.7	1310	14	.24	.04	1.8
28	5.2	1140	10	13	11	5.4	1.8	470	13	.15	.11	1.7
29	4.4	1020	10	13	---	5.5	1.3	73	12	.07	.10	1.4
30	3.5	631	9.8	13	---	5.3	2.0	40	9.8	.06	.06	1.0
31	2.5	---	9.5	12	---	5.3	---	39	---	.04	.08	---
TOTAL	385.33	7963.2	752.9	383.2	2927	261.0	107.9	5457.3	12934.8	92.21	2.24	145.94
MEAN	12.4	265	24.3	12.4	105	8.42	3.60	176	431	2.97	.07	4.86
MAX	69	1970	161	20	1050	12	9.9	1310	3180	9.6	.50	25
MIN	.09	1.6	9.5	9.0	11	5.3	1.3	9.0	9.8	.04	.00	.16
AC-FT	764	15800	1490	760	5810	518	214	10820	25660	183	4.4	289

CAL YR 1985 TOTAL 20850.44 MEAN 57.1 MAX 1970 MIN .00 AC-FT 41360
WTR YR 1986 TOTAL 31413.02 MEAN 86.1 MAX 3180 MIN .00 AC-FT 62310

08109800 EAST YEGUA CREEK NEAR DIME BOX, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1980 to current year. Sediment analyses: June 1966 to September 1975.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3
OCT 17...	1100	17	418	6.70	23.0	300	1900	6.5	76	3.1	110	84
DEC 19...	1020	14	1320	7.30	8.0	30	10	12.8	--	1.3	290	230
MAR 19...	1120	10	1650	7.40	17.0	20	21	7.6	79	1.7	540	450
APR 29...	1040	1.3	1470	7.20	24.0	20	35	5.0	60	2.3	430	330
JUL 10...	1015	2.9	1360	7.20	28.5	10	2.5	5.5	--	1.0	450	360

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT 17...	31	9.1	32	1	7.3	31	96	40	0.3	12	250
DEC 19...	80	22	160	4	8.9	59	350	190	0.3	1.4	850
MAR 19...	140	46	120	2	8.0	89	440	220	0.4	13	1000
APR 29...	110	38	120	3	8.9	105	300	220	0.4	15	880
JUL 10...	120	37	100	2	8.2	92	320	190	0.5	19	850

DATE	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)
OCT 17...	400	52	0.22	0.08	0.30	0.29	1.3	1.6	0.30	14	1
DEC 19...	14	10	0.38	0.02	0.40	0.15	0.55	0.7	0.05	3.5	--
MAR 19...	37	4	--	<0.01	<0.10	0.05	0.65	0.7	0.05	8.3	--
APR 29...	168	8	--	0.02	<0.10	0.13	0.67	0.8	0.09	11	--
JUL 10...	9	--	--	<0.01	0.10	0.09	0.41	0.5	0.03	6.9	<1

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 17...	42	<1	<10	<1	84	1	130	<0.1	<1	<1	14
DEC 19...	--	--	2	--	--	--	--	--	--	--	--
MAR 19...	--	--	--	--	--	--	--	--	--	--	--
APR 29...	--	--	--	--	--	--	--	--	--	--	--
JUL 10...	100	2	<10	3	6	<5	130	<0.1	<1	<1	5

08109900 SOMERVILLE LAKE NEAR SOMERVILLE, TX

LOCATION.--Lat 30°19'20", long 96°31'32", Burleson County, Hydrologic Unit 12070102, in intake structure of Somerville Dam on Yegua Creek, at the southwest edge of the city limits of Somerville, and 20.0 mi upstream from mouth.

DRAINAGE AREA.--1,007 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1966 to current year. Prior to October 1970, published as Somerville Reservoir.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--The lake is formed by a rolled earthfill dam 20,210 ft long, with a 4,715-foot-long dike and a 1,250-foot long uncontrolled spillway. Deliberate impoundment began Jan. 3, 1967, and the dam was completed Oct. 27, 1967. The spillway is an uncontrolled ogee weir 1,250 ft wide located near right end of dam. The low-flow outlet consists of one 10.0-foot-diameter conduit that is controlled by two 5.0- by 10.0-foot tractor-type gates. Capacity table is based on Geological Survey topographic maps dated 1959. The lake was designed for flood control and water conservation Gage-height telemeter at station. Figures given herein represent total contents. Data regarding the dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	280.0	-
Design flood	274.5	1,028,800
Crest of spillway	258.0	507,500
Top of conservation pool	238.0	160,100
Lowest gated outlet (invert of 10-foot conduit)	206.0	200

COOPERATION.--Records furnished by the U.S. Army Corps of Engineers and reviewed by the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 311,000 acre-ft June 9, 1979 (elevation, 248.55 ft); minimum, 88,800 acre-ft Oct. 5, 1984 (elevation, 230.70 ft).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 273,900 acre-ft June 14 at 0700 hours (elevation, 246.32 ft); minimum daily, 133,700 acre-ft Oct. 11 at 2100 hours (elevation, 235.57 ft).

Capacity table (elevation, in feet, and total contents, in acre-feet)

235.0	127,900	241.0	196,800	245.0	253,300
237.0	148,900	243.0	223,900	247.0	284,900
239.0	171,800				

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	136400	153200	219700	172200	161000	162000	157400	162500	175500	249500	173800	160100
2	136300	153500	220700	170100	161100	161800	157100	165400	175700	246800	172500	160100
3	136200	153500	220100	169400	162500	162100	157100	167400	175200	243900	171500	160000
4	136000	153500	218700	169000	165800	162100	157300	168400	174500	240800	170500	159900
5	135600	153400	216800	168400	169400	162200	157300	168600	175300	237700	168700	160000
6	135100	153500	215200	167700	171300	162000	157300	168000	175500	234700	168200	162500
7	134700	153300	213400	167000	172600	162000	157400	167400	178700	231800	167300	162600
8	134300	153300	211700	166500	173700	161800	157300	167000	219900	228900	166500	163300
9	134100	153400	210100	166600	174500	162000	156900	166300	250200	226200	165900	164000
10	133900	153400	208600	165900	174300	162000	157800	166000	261700	223100	165900	164000
11	133800	153700	207400	165300	173200	162200	157900	165200	269300	220600	165400	164000
12	133800	153900	206900	164700	172000	159400	157800	164600	272900	218200	164800	165200
13	133700	153900	206900	164400	171100	159300	157800	163900	273600	215800	164400	166400
14	135600	153900	203800	164400	170400	159200	157700	163600	273700	213600	163800	166600
15	136200	153900	200400	164400	169400	159200	157400	163600	272800	211500	163500	166800
16	136400	155200	199400	164600	168600	159100	157300	163900	270500	209300	163000	166700
17	136800	155600	198400	165700	167700	159100	156900	166300	269900	207100	162600	166300
18	137200	155900	197100	166300	167000	159100	156900	169100	268500	204900	162200	166000
19	137700	156000	195100	166500	166800	158500	157400	171900	268600	202700	161700	165500
20	138000	155700	193400	166600	165300	158300	157100	173400	272100	200600	161300	165100
21	142700	155600	191800	166700	164400	158200	156700	173500	273600	198300	160900	164600
22	147600	155500	190200	166000	163700	157900	156600	172900	273400	196000	160800	164000
23	150100	155600	188700	165400	163100	157800	156400	172000	271800	194000	161100	163300
24	152200	163100	187300	164700	162400	157700	156200	170500	269000	191300	161100	162600
25	153000	169400	184300	164200	162100	157500	156100	171600	266300	189100	160900	161800
26	153100	179200	183000	163300	161600	157400	155900	172200	264600	186800	160800	161400
27	153100	194100	181500	162500	161100	157700	155900	172500	261700	184700	160600	160900
28	153500	204700	179800	162000	160900	157700	156200	172600	258500	182400	160500	160500
29	153400	211900	178300	161300	---	157600	156200	172800	255600	180300	160100	160100
30	153100	216500	176000	160900	---	157500	156500	173400	252500	178100	159900	159800
31	152800	---	174100	161000	---	157400	---	175300	---	175900	159700	---
MAX	153500	216500	220700	172200	174500	162200	157900	175300	273700	249500	173800	166800
MIN	133700	153200	174100	160900	160900	157400	155900	162500	174500	175900	159700	159800
(†)	237.35	242.47	239.19	238.08	238.07	237.76	237.68	239.29	244.95	239.34	237.96	237.97
(‡)	+16100	+63700	-42400	-13100	-100	-3500	-900	+18800	+77200	-76600	-16200	+100

CAL YR 1985 MAX 220700 MIN 133700 (‡) +4000
WTR YR 1986 MAX 273700 MIN 133700 (‡) +23100

(†) Elevation, in feet, at end of month.
(‡) Change in contents, in acre-feet.

08109900 SOMERVILLE LAKE NEAR SOMERVILLE, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1969 to current year.

301908096313101 - SOMERVILLE LAKE AC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)
MAR											
04...	1055	1.00	382	7.90	15.5	0.5	8.2	82	<1	<1	110
04...	1056	0.8	--	--	--	--	--	--	--	--	--
04...	1057	10.0	383	7.80	15.0	--	8.2	81	--	--	--
04...	1059	20.0	387	7.70	15.0	--	8.2	82	--	--	--
04...	1101	27.0	386	7.60	15.0	--	7.7	77	--	--	110
MAY											
14...	1100	1.00	420	8.70	25.5	1.10	8.6	107	K1	K17	120
14...	1101	1.80	--	--	--	--	--	--	--	--	--
14...	1102	5.00	420	8.70	25.5	--	8.6	107	--	--	--
14...	1104	10.0	420	8.60	25.5	--	8.4	105	--	--	--
14...	1106	15.0	420	8.60	25.5	--	8.3	103	--	--	--
14...	1108	20.0	420	7.20	24.0	--	5.7	69	--	--	--
14...	1110	25.0	420	7.00	23.5	--	4.9	59	--	--	--
14...	1112	29.0	420	7.00	23.5	--	4.2	50	--	--	120
AUG											
14...	1145	1.00	310	8.20	29.5	1.10	7.0	--	K1	K12	90
14...	1147	10.0	310	7.40	29.0	--	5.4	--	--	--	--
14...	1149	20.0	310	7.10	29.0	--	3.9	--	--	--	--
14...	1151	27.0	310	7.10	29.0	--	3.6	--	--	--	90

DATE	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
MAR										
04...	61	32	7.7	26	1	6.2	51	65	45	0.1
04...	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--
04...	60	32	7.7	26	1	6.2	52	66	45	--
MAY										
14...	70	35	8.4	30	1	6.8	52	73	44	0.2
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
14...	66	34	8.1	29	1	6.5	52	64	45	--
AUG										
14...	35	26	6.2	20	0.9	5.9	55	37	30	0.32
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
14...	35	26	6.1	20	1	5.9	55	37	30	--

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
MAR										
04...	12	220	0.01	<0.10	0.06	0.84	0.9	0.05	15	3
04...	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--
04...	--	--	<0.01	<0.10	0.07	0.83	0.9	0.05	40	<10
04...	12	230	0.02	<0.10	0.07	0.93	1.0	0.06	22	9
MAY										
14...	9.9	240	<0.01	<0.10	<0.01	--	0.7	0.01	18	1
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	<0.01	<0.10	<0.01	--	0.7	0.01	40	10
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	0.01	<0.10	0.03	0.67	0.7	0.01	20	40
14...	--	--	--	--	--	--	--	--	--	--
14...	10	230	0.02	<0.10	0.10	0.7	0.8	0.03	22	140
AUG										
14...	13	170	<0.01	<0.10	0.01	0.89	0.9	0.16	<7	<4
14...	--	--	<0.01	<0.10	0.04	0.66	0.7	0.08	10	10
14...	--	--	--	--	--	--	--	--	--	--
14...	13	170	<0.01	<0.10	0.11	0.69	0.8	0.07	<7	150

301940096315801 - SOMERVILLE LAKE AC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
MAR							
04...	1110	1.00	383	8.00	16.0	8.3	84
04...	1112	10.0	384	7.80	15.0	8.3	82
04...	1114	20.0	386	7.80	15.0	8.3	82
04...	1116	25.0	388	7.80	15.0	8.3	82
MAY							
14...	1035	1.00	420	8.70	26.0	8.1	102
14...	1037	10.0	420	8.70	25.5	8.3	103
14...	1039	20.0	420	7.10	23.5	5.0	60
14...	1041	25.0	420	7.10	23.5	4.9	59
AUG							
14...	1130	1.00	310	7.50	29.5	5.9	--
14...	1132	10.0	310	7.40	29.5	5.6	--
14...	1133	15.0	310	7.40	29.5	5.4	--

302026096341501 - SOMERVILLE LAKE BC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
MAR							
04...	1135	1.00	383	8.00	16.0	8.3	84
04...	1137	10.0	385	7.80	15.5	8.0	80
04...	1139	13.0	382	7.80	15.5	7.9	79
MAY							
14...	1140	1.00	415	8.50	27.0	7.7	98
14...	1142	5.00	415	8.50	27.0	7.7	98
14...	1144	10.0	415	8.50	27.0	7.7	98
14...	1146	13.0	415	8.50	27.0	7.4	95
AUG							
14...	1220	1.00	310	8.50	31.0	7.7	--
14...	1221	5.00	310	8.50	30.5	7.5	--
14...	1222	10.0	310	8.30	30.5	6.7	--
14...	1223	13.0	310	8.20	30.5	6.5	--

301805096332501 - SOMERVILLE LAKE CC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
MAR							
04...	1320	1.00	385	8.30	16.0	8.8	89
04...	1322	11.0	388	8.10	16.0	8.5	86
MAY							
14...	1205	1.00	418	7.70	24.5	7.1	87
14...	1207	5.00	418	7.60	24.5	6.8	83
14...	1209	10.0	418	7.50	24.5	6.7	82
14...	1211	15.0	418	7.10	24.0	5.2	63
AUG							
14...	1250	1.00	311	7.80	30.0	6.4	--
14...	1252	10.0	311	7.30	29.5	5.0	--
14...	1253	15.0	311	7.20	29.0	4.6	--
14...	1255	18.0	311	7.00	29.0	3.3	--

SOMERVILLE LAKE NEAR SOMERVILLE, TX--Continued

301847096334601 - SOMERVILLE LAKE DR

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
MAR							
04...	1215	1.00	388	7.80	15.0	7.5	75
04...	1217	10.0	387	7.70	15.0	7.4	74
04...	1219	23.0	385	7.80	15.0	7.6	76
MAY							
14...	1250	1.00	420	8.60	26.0	8.2	103
14...	1252	10.0	420	8.50	25.5	7.9	98
14...	1254	15.0	420	7.10	24.0	4.6	56
14...	1256	23.0	420	7.00	24.0	3.8	46
AUG							
14...	1330	1.00	310	8.10	30.0	6.8	--
14...	1332	10.0	310	7.40	29.5	5.3	--
14...	1334	20.0	310	7.10	29.5	3.7	--
14...	1335	24.0	310	7.10	29.5	3.7	--

301904096335601 - SOMERVILLE LAKE DC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
MAR										
04...	1155	1.00	386	8.20	15.5	0.5	8.4	84	<1	<1
04...	1157	10.0	391	7.70	15.0	--	7.7	77	--	--
04...	1159	20.0	393	7.80	15.0	--	7.7	77	--	--
04...	1201	25.0	391	7.80	15.0	--	8.0	80	--	--
MAY										
14...	1235	1.00	420	8.60	26.0	1.10	8.2	103	<1	K16
14...	1237	5.00	420	8.60	26.0	--	8.2	103	--	--
14...	1239	10.0	420	8.60	26.0	--	8.1	102	--	--
14...	1241	15.0	420	8.50	26.0	--	7.7	97	--	--
14...	1243	20.0	420	7.00	24.0	--	3.8	46	--	--
14...	1245	26.0	420	6.90	23.5	--	3.5	42	--	--
AUG										
14...	1310	1.00	310	8.30	30.5	1.00	7.5	--	<1	K2
14...	1312	10.0	310	8.00	30.0	--	6.3	--	--	--
14...	1314	20.0	312	7.00	29.5	--	3.1	--	--	--
14...	1316	26.0	314	6.90	29.5	--	2.0	--	--	--

DATE	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
MAR										
04...	110	61	32	7.9	27	1	6.3	51	69	46
04...	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--
04...	110	64	32	8.1	27	1	6.3	49	69	46
MAY										
14...	120	68	34	8.5	30	1	6.5	52	68	48
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
14...	120	67	34	8.2	29	1	6.8	52	71	44
AUG										
14...	90	35	26	6.2	20	0.9	5.8	55	39	28
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
14...	85	30	24	6.1	17	0.8	5.5	55	29	30

SOMERVILLE LAKE NEAR SOMERVILLE, TX--Continued

301904096335601 - SOMERVILLE LAKE DC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAR										
04...	12	230	<0.01	<0.10	0.04	0.76	0.8	0.06	7	<1
04...	--	--	--	--	--	--	--	--	--	--
04...	--	--	<0.01	<0.10	0.07	0.93	1.0	0.05	30	<10
04...	12	230	<0.01	<0.10	0.06	0.84	0.9	0.06	27	7
MAY										
14...	9.6	240	<0.01	<0.10	0.02	0.68	0.7	0.02	10	1
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	<0.01	<0.10	0.01	0.69	0.7	0.02	40	10
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	0.01	<0.10	0.11	0.69	0.8	<0.01	40	20
14...	11	240	0.01	<0.10	0.16	0.74	0.9	0.03	21	20
AUG										
14...	13	170	<0.01	<0.10	0.01	0.89	0.9	0.08	<7	<4
14...	--	--	<0.01	<0.10	<0.01	--	0.8	0.02	10	<10
14...	--	--	<0.01	<0.10	0.12	0.78	0.9	0.10	40	40
14...	12	160	<0.01	<0.10	0.18	0.82	1.0	0.07	<20	210

301817096364101 - SOMERVILLE LAKE EC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
MAR							
04...	1233	1.00	400	8.20	15.5	8.7	87
04...	1235	10.0	398	7.70	15.5	8.0	80
04...	1237	20.0	398	7.70	15.5	7.8	78
MAY							
14...	1305	1.00	420	8.20	25.0	7.5	92
14...	1307	10.0	420	8.10	25.0	7.4	91
14...	1309	15.0	420	7.80	25.0	7.0	86
14...	1311	18.0	420	7.30	24.5	5.3	65
AUG							
14...	1353	1.00	310	8.70	31.0	8.6	--
14...	1355	10.0	310	8.00	30.0	6.2	--
14...	1356	15.0	317	6.90	29.5	2.2	--
14...	1357	20.0	319	6.90	29.0	1.5	--

301754096380801 - SOMERVILLE LAKE FC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
MAR										
04...	1255	1.00	488	8.20	16.5	0.3	8.9	91	31	K2
04...	1256	0.5	--	--	--	--	--	--	--	--
04...	1257	9.00	497	7.80	16.5	--	8.0	82	--	--
MAY										
14...	1330	1.00	435	7.60	24.5	0.5	6.9	84	<1	<1
14...	1331	0.8	--	--	--	--	--	--	--	--
14...	1332	10.0	435	7.50	24.5	--	6.7	82	--	--
14...	1334	14.0	435	7.40	24.5	--	6.1	74	--	--
AUG										
14...	1410	1.00	319	8.70	31.5	0.64	8.3	--	<2	K10
14...	1412	5.00	335	8.60	31.5	--	7.6	--	--	--
14...	1414	10.0	335	6.90	29.5	--	2.0	--	--	--

SOMERVILLE LAKE NEAR SOMERVILLE, TX--Continued

301754096380801 - SOMERVILLE LAKE FC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
MAR										
04...	140	91	39	10	35	1	6.7	48	98	58
04...	--	--	--	--	--	--	--	--	--	--
04...	140	95	39	11	35	1	6.8	48	100	61
MAY										
14...	120	72	35	8.8	32	1	6.9	52	76	46
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
14...	120	71	35	8.7	31	1	6.8	52	77	46
AUG										
14...	92	36	26	6.5	19	0.9	6.3	56	31	33
14...	89	30	25	6.4	19	0.9	5.9	59	30	33
14...	89	30	25	6.4	19	0.9	5.9	59	30	33

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAR										
04...	12	290	0.01	<0.10	0.02	0.98	1.0	0.08	16	3
04...	--	--	--	--	--	--	--	--	--	--
04...	12	290	0.01	<0.10	0.04	1.4	1.4	0.12	24	7
MAY										
14...	9.8	250	0.01	<0.10	0.03	0.77	0.8	0.04	14	6
14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
14...	10	250	0.01	<0.10	0.05	1.0	1.1	0.05	29	85
AUG										
14...	13	170	<0.01	<0.10	<0.01	--	1.0	0.07	<20	60
14...	13	170	--	--	--	--	--	--	50	1200
14...	13	170	0.02	<0.10	0.09	0.91	1.0	0.11	50	1200

SOMERVILLE LAKE NEAR SOMERVILLE, TX--Continued

Somerville Lake AC (301908096313101)

Phytoplankton Analyses October 1985 to September 1986

Date	3-4-86
Time	1056
TOTAL CELLS/mL	596,509
NUMBER OF SPECIES	49
DEPTH COLLECTED (ft.)	0.8

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Ankistrodesmus nannoselene	227
Chlamydomonas sp. 2	1363
Chlamydomonas sp. 3	1363
Chlorococcum sp.	3181
Chodatella quadriseta	227
Chodatella subsalsa	454
Chodatella wratislawiensis	227
Gloeocystis sp.	3862
Kirchneriella lunaris	3862
Mesotaenium sp.	454
Oocystis sp.	1818
Scenedesmus abundans	909
Scenedesmus brasiliensis	454
Scenedesmus sp.	909
Schroederia setigera	227
Tetrastrum heteracanthum	909
Tetrastrum staurogeniaeforme	2726
CYANOPHYTA (blue-green algae)	
Aphanocapsa delicatissima	112237
Aphanocapsa elachista	27037
Aphanothece saxicola	113827
Chroococcus dispersus	227
Chroococcus limneticus	2272
Chroococcus multicoloratus	2499
Chroococcus sp.	4771
Dactylococcopsis acicularis	227
Dactylococcopsis fascicularis	6134
Dactylococcopsis raphidioides	2272
Merismopedia punctata	5907
Merismopedia tenuissima	39533
Microcystis flos-aquae	62707
Microcystis sp.	32035
Synechocystis sp.	227
Synechococcus elongatus	87699
Synechococcus irregulare	227
Synechococcus lineare var. *spirale*	70432
CRYPTOPHYTA (cryptomonads)	
Chilomonas sp.	227
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Cyclotella meneghiniana	73
Cyclotella pseudostelligera	236
Melosira granulata var. *angustissima* f. *spiralis*	909
Melosira lirata	114
Stephanodiscus dubius	436
Stephanodiscus hantzschii	164
Order Pennales	
Diploneis sp.	454
Navicula sp.	38
Nitzschia acicularis	189
Nitzschia gracilis	113
Nitzschia palea	38
Synedra rumpens	38
Synedra sp.	38

SOMERVILLE LAKE NEAR SOMERVILLE, TX--Continued

Somerville Lake AC (03019080963130l0)

Phytoplankton Analyses October 1985 to September 1986

Date	5-14-86
Time	1101
TOTAL CELLS/mL	186,876
NUMBER OF SPECIES	45
DEPTH COLLECTED (ft.)	1.8

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Ankistrodesmus convolutus	682
Ankistrodesmus falcatus var. *mirabilis*	114
Ankistrodesmus nannoselene	341
Chlamydomonas sp. 3	114
Chlorococcum sp.	227
Closterium sp.	114
Kirchneriella contorta	1704
Oocystis sp.	795
Pediastrum duplex	4090
Scenedesmus abundans	795
Scenedesmus bijuga	682
Scenedesmus brasiliensis	227
Scenedesmus dimorphus	795
Scenedesmus quadricauda	682
Scenedesmus serratus	2499
Schroederia setigera	114
Tetraedron caudatum	114
Tetrastrum heteracanthum	454
Tetrastrum staurogeniaeforme	682
Treubaria sp.	227
CYANOPHYTA (blue-green algae)	
Aphanocapsa delicatissima	79066
Aphanocapsa elachista	16586
Aphanothece saxicola	2726
Chroococcus multicoloratus	682
Dactylococcopsis fascicularis	454
Merismopedia punctata	2272
Merismopedia tenuissima	21584
Microcystis marina	13632
Oscillatoria sp.	682
Synechococcus lineare var. *spirale*	30899
EUGLENOPHYTA (euglenoid algae)	
Euglena sp.	114
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Cyclotella stelligera	151
Melosira granulata var. *angustissima* f. *spiralis*	757
Melosira lirata	1010
Stephanodiscus astrea	101
Stephanodiscus hantzschia var. *pusillus*	76
Stephanodiscus sp.	177
Order Pennales	
Diploneis smithii	105
Navicula accomoda	35
Navicula bicephala	35
Navicula circumtexta	35
Navicula luzonensis	70
Navicula sp.	35
Nitzschia palea	105
Nitzschia sp.	35

SOMERVILLE LAKE NEAR SOMERVILLE, TX--Continued

Somerville Lake AC (301908096313101)

Phytoplankton Analyses October 1985 to September 1986

Date	8-14-86
Time	1146
TOTAL CELLS/mL	3,602,058
NUMBER OF SPECIES	45
DEPTH COLLECTED (ft.)	1.8

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Ankistrodesmus convolutus	2272
Ankistrodesmus falcatus	1136
Cosmarium sp.	1136
Dictyosphaerium pulchellum	2272
Franceia ovalis	1136
Scenedesmus armatus	2272
Scenedesmus dimorphus	4544
Scenedesmus quadricauda	2272
Scenedesmus serratus	2272
Tetraedron trigonum	1136
Tetrastrum staurogeniaeforme	4544
CYANOPHYTA (blue-green algae)	
Anabaenopsis raciborskii	36352
Aphanocapsa delicatissima	159040
Aphanocapsa elachista	49984
Aphanocapsa elachista var. *conferta*	36352
Aphanothece saxicola	36352
Chroococcus multicoloratus	45440
Chroococcus pallidus	4544
Chroococcus refractus	86336
Dactylococcopsis acicularis	4544
Dactylococcopsis fascicularis	15904
Lyngbya limnetica	193120
Lyngbya nana	9088
Merismopedia glauca	27264
Microcystis flos-aquae ?	70432
Oscillatoria limnetica	56576
Oscillatoria planctonica	6816
Oscillatoria subtilissima	9088
Synechococcus aeruginosa	2272
Synechococcus sp.	2719584
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Cyclotella meneghiniana	252
Cyclotella stelligera	28
Melosira granulata	793
Melosira granulata var. *angustissima*	36
Melosira granulata var. *angustissima* f. *spiralis*	541
Melosira lirata	289
Stephanodiscus tenuis ?	361
Order Pennales	
Achnanthes lanceolata var. *dubia*	132
Anomoeoneis vitrea	132
Anomoeoneis sp.	660
Diploneis sp.	528
Navicula sp.	132
Nitzschia acicularis	396
Nitzschia palea	528
Nitzschia paleacea	3170

SOMERVILLE LAKE NEAR SOMERVILLE, TX--Continued

Somerville Lake FC (301754096380801)

Phytoplankton Analyses October 1985 to September 1986

Date	3-4-86
Time	1256
TOTAL CELLS/mL	556,023
NUMBER OF SPECIES	54
DEPTH COLLECTED (ft.)	0.5

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Ankistrodesmus falcatus	228
Ankistrodesmus nannoselene	454
Chlamydomonas sp. 2	454
Chlamydomonas sp. 3	908
Chlorella sp.	2500
Chlorococcum sp.	2954
Chodatella quadriseta	454
Chodatella subsalsa	908
Chodatella wratislawiensis	682
Dictyosphaerium pulchellum	908
Gloeocystis sp.	454
Golenkina radiata	228
Kirchneriella lunaris	4090
Mesotaenium sp.	228
Oocystis lacustris	454
Oocystis sp.	908
Phacotus lenticularis	454
Pteromonas sp.	682
Scenedesmus abundans	1364
Scenedesmus armatus var. *bicaudatus*	454
Scenedesmus brasiliensis	454
Scenedesmus quadricauda	908
Tetrastrum staurogeniaeforme	5452
CYANOPHYTA (blue-green algae)	
Aphanocapsa delicatissima	254010
Aphanocapsa elachista	33626
Aphanothece saxicola	96788
Chroococcus dispersus	908
Chroococcus limneticus	682
Chroococcus multicoloratus	1590
Chroococcus pallidus	908
Dactylococcopsis acicularis	228
Dactylococcopsis fascicularis	4090
Dactylococcopsis raphidioides	228
Merismopedia tenuissima	40442
Merismopedia punctata	9542
Microcystis sp.	10966
Synechococcus elongatus	682
Synechococcus irregulare	228
Synechococcus lineare	6588
Synechococcus lineare var. *spirale*	51574
CRYPTOPHYTA (cryptomonads)	
Cryptomonas sp.	228
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Chaetoceros sp.	228
Cyclotella meneghiniana	158
Cyclotella pseudostelligera	947
Dysmorphococcus sp.	228
Melosira distans	1590
Melosira granulata var. *angustissima* f. *spiralis*	1364
Stephanodiscus astrea	316
Stephanodiscus dubius	1104
Stephanodiscus hantzschii	8836
Order Pennales	
Diploneis sp.	228
Nitzschia acicularis	454
Nitzschia palea	454
Synedra sp.	228

SOMERVILLE LAKE NEAR SOMERVILLE, TX--Continued

Somerville Lake FC (301754096380801)

Phytoplankton Analyses October 1985 to September 1986

Date	5-14-86
Time	1331
TOTAL CELLS/mL	149,267
NUMBER OF SPECIES	40
DEPTH COLLECTED (ft.)	0.8

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Ankistrodesmus convolutus	114
Ankistrodesmus falcatus var. mirabilis	454
Ankistrodesmus nannoselene	227
Chodatella subsalsa	454
Coelastrum sp.	409
Golenkinia radiata	114
Kirchneriella lunaris	2386
Oocystis sp.	227
Pediastrum tetras	454
Scenedesmus abundans	454
Scenedesmus denticulatus var. recurvatus	454
Scenedesmus dimorphus	568
Scenedesmus serratus	1818
Schroederia setigera	114
Tetraedron minimum	114
Tetrastrum heteracanthum	454
CYANOPHYTA (blue-green algae)	
Aphanocapsa delicatissima	104398
Aphanocapsa elachista	6134
Chroococcus multicoloratus	1022
Chroococcus varius	4544
Dactylococcopsis fascicularis	795
Dactylococcopsis raphidioides	114
Merismopedia punctata	2499
Merismopedia tenuissima	5453
Microcystis marina	454
Synechococcus lineare var. spirale	5907
Synechococcus sigmoidea	114
Synechococcus sp.	3181
Synechocystis sp.	1136
EUGLENOPHYTA (euglenoid algae)	
Euglena sp.	114
Trachelomonas hispida	114
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Cyclotella stelligera	454
Melosira lirata	3181
Stephanodiscus astrea	57
Stephanodiscus hantzschii var. pusillus	114
Order Pennales	
Anomoeoneis sp.	341
Diploneis smithii	57
Navicula circumtexta	28
Navicula luzonensis	14
Nitzschia palea	227

SOMERVILLE LAKE NEAR SOMERVILLE, TX--Continued

Somerville Lake FC (301754096380801)

Phytoplankton Analyses October 1985 to September 1986

Date	8-14-86
Time	1411
TOTAL CELLS/mL	6,130,691
NUMBER OF SPECIES	62
DEPTH COLLECTED (ft.)	1.1

Organisms	Cells/mL
CHLOROPHYTA (green algae)	
Ankistrodesmus convolutus	7272
Ankistrodesmus nannoselene	6816
Ankistrodesmus sp.	2272
Chlorella sp.	454
Chlorococcum sp.	6816
Closterium sp.	114
Coelastrum sp.	9088
Crucigenia apiculata	18176
Crucigenia tetrapedia	4544
Dictyosphaerium pulchellum	6816
Dysmorphococcus sp.	2272
Elakatothrix viridis	4544
Franceia ovalis	6816
Kirchneriella contorta	2272
Kirchneriella obesa	6816
Nephrocytium sp.	9088
Oocystis sp.	11360
Scenedesmus armatus var. *bicaudatus*	4544
Scenedesmus quadricauda	4544
Scenedesmus sp.	27264
Schroederia setigera	2272
Staurastrum sp.	2272
Tetrastrum heteracanthum	9088
CYANOPHYTA (blue-green algae)	
Anabaena sp.	13632
Anabaenopsis raciborskii	24992
Anabaenopsis sp.	59072
Aphanocapsa delicatissima	592992
Aphanocapsa elachista	270369
Aphanocapsa elachista var. *conferta*	90880
Aphanothece saxicola	136320
Chroococcus limneticus	159040
Chroococcus pallidus	72704
Chroococcus refractus	147680
Chroococcus sp.	113600
Dactylococcopsis acicularis	4544
Dactylococcopsis fascicularis	79520
Lyngbya limnetica	249920
Lyngbya nana	74976
Merismopedia tenuissima	181760
Microcystis aeruginosa	29536
Microcystis flos-aquae ?	13632
Microcystis marina	104512
Oscillatoria limnetica	1235968
Oscillatoria planctonica	20448
Oscillatoria subtilissima	68160
Spirulina laxissima	13632
Synechococcus aeruginosa	2272
Synechococcus lineare	6816
Synechococcus sp.	2172032
Synechocystis sp.	6816
EUGLENOPHYTA (euglenoid algae)	
Phacus sp.	2272
Trachelomonas volvocina	4544
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Cyclotella stelligera	884
Melosira ambigua	3092
Melosira granulata	4948
Melosira granulata var. *angustissima* f. *spiralis*	618
Melosira lirata	2474
Melosira sp.	618
Stephanodiscus tenuis ?	1944
Order Pennales	
Diploneis sp.	1136
Nitzschia palea	2272
Nitzschia subacicularis	4544

08110000 VEGUA CREEK NEAR SOMERVILLE, TX

LOCATION.--Lat 30°19'18", long 96°30'26", Burleson County, Hydrologic Unit 12070102, on left bank 40 ft downstream from bridge on State Highway 36, 860 ft downstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 1.0 mi downstream from Somerville Lake, 2.0 mi south of Somerville, 5.0 mi upstream from Davidson Creek, and 18.4 mi upstream from mouth.

DRAINAGE AREA.--1,009 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1924 to current year.

REVISED RECORDS.--WSP 1512: 1926(M), 1929, 1935. WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 199.21 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 30, 1934, nonrecording gage at railway bridge 860 ft upstream at datum 34.30 ft higher. Jan. 30, 1934, to Nov. 30, 1970, water-stage recorder at highway bridge 100 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good above 1.0 ft³/s and fair below. Flow regulated by Somerville Lake (station 08109900) since Feb. 3, 1965.

AVERAGE DISCHARGE.--41 years (water years 1925-65) unregulated, 290 ft³/s (210,100 acre-ft/yr); 21 years (water years 1966-86) regulated, 285 ft³/s (206,500 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 56,800 ft³/s July 1, 1940 (gage height, 19.27 ft); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1875, 22 ft Dec. 5, 1913, present site and datum, from information by Gulf, Colorado, and Santa Fe Railway Co.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,830 ft³/s Jun. 24 at 1400 hours (gage height, 8.21 ft); minimum daily, 0.26 on Aug. 25, 1986.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	3.5	711	1060	.87	1.7	3.1	12	719	1690	1090	.36
2	1.4	4.7	836	961	.72	.49	3.1	4.9	720	1690	831	.41
3	1.4	4.7	1090	579	.76	.45	3.1	.90	724	1690	789	.42
4	1.4	3.9	1120	544	2.0	.47	3.0	.60	721	1680	794	.46
5	41	3.7	1120	539	1.3	.52	2.7	76	742	1680	727	.49
6	113	3.5	1120	541	2.1	.59	2.4	340	744	1670	477	1.1
7	117	3.3	1120	544	67	.68	2.1	371	746	1660	441	1.0
8	125	3.3	1130	538	325	.83	1.8	382	673	1660	328	.71
9	124	3.4	1120	538	355	.89	1.6	382	71	1650	156	.91
10	123	3.6	1120	541	435	1.0	1.9	388	14	1630	150	.81
11	65	4.0	1140	539	608	1.1	2.4	383	3.6	1480	149	.63
12	6.1	4.4	1120	541	615	1.4	2.4	381	243	1170	149	.57
13	3.5	4.5	1120	397	618	1.5	2.2	381	1060	1110	114	.57
14	3.6	4.5	1120	30	622	1.6	2.0	380	1160	1100	69	.59
15	5.6	4.5	1110	11	629	1.8	2.0	391	1170	1110	67	.60
16	3.9	9.0	1110	8.4	636	1.9	2.0	347	1300	1110	67	20
17	3.4	15	1100	6.7	640	1.8	2.1	169	1620	1110	66	56
18	3.6	6.1	1100	5.9	643	1.9	2.4	161	1730	1110	66	55
19	3.5	4.5	1100	5.3	650	2.0	2.8	148	1760	1120	67	79
20	3.6	4.1	1100	5.1	651	2.1	3.0	195	1760	1120	67	129
21	17	4.0	1100	68	549	2.3	2.8	479	1760	1130	39	131
22	24	4.2	1100	187	388	2.4	2.6	588	1750	1130	1.7	263
23	6.7	4.2	1100	330	376	2.5	2.4	707	1730	1140	.38	370
24	3.9	25	1090	349	377	2.7	2.4	710	1760	1140	.29	374
25	3.2	22	1090	353	266	2.7	2.3	632	1740	1140	.26	294
26	2.9	7.0	1090	352	119	2.5	2.1	11	1740	1140	.28	109
27	2.7	18	1090	353	114	2.5	2.0	42	1750	1140	.30	105
28	3.1	12	1090	355	55	2.6	2.2	338	1720	1140	.35	109
29	3.6	5.0	1080	352	---	2.7	2.4	505	1710	1130	.40	39
30	3.7	289	1070	184	---	2.8	2.6	593	1700	1130	.36	.31
31	3.5	---	1070	4.6	---	3.0	---	715	---	1130	.35	---
TOTAL	824.8	488.6	33577	10822.0	9745.75	53.42	71.9	10213.40	35040.6	40730	6707.67	2142.94
MEAN	26.6	16.3	1083	349	348	1.72	2.40	329	1168	1314	216	71.4
MAX	125	289	1140	1060	651	3.0	3.1	715	1760	1690	1090	374
MIN	1.4	3.3	711	4.6	.72	.45	1.6	.60	3.6	1100	.26	.31
AC-FT	1640	969	66600	21470	19330	106	143	20260	69500	80790	13300	4250

CAL YR 1985 TOTAL 105515.60 MEAN 289 MAX 1140 MIN 70 AC-FT 209300
WTR YR 1986 TOTAL 150418.08 MEAN 412 MAX 1760 MIN 26 AC-FT 298400

08110000 VEGUA CREEK NEAR SOMERVILLE, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: March 1942 to March 1959, September 1961 to September 1967, October 1968 to September 1980. Chemical and biochemical analyses: October 1980 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: September 1961 to September 1967.
WATER TEMPERATURE: September 1961 to June 1967.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,380 microsiemens Apr. 14, 1962; minimum daily, 53 microsiemens Sept. 13, 1961.
WATER TEMPERATURES: Maximum daily, 33.0°C June 11, July 31, 1965; minimum daily, 1.5°C Jan. 14, 1964.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS (MG/L AS CACO3)
MAR 04...	1412	0.41	559	7.20	21.0	20	25	8.4	95	3.9	160
MAY 14...	1415	--	435	7.90	24.0	5	2.0	7.9	96	2.0	120
AUG 14...	1520	--	314	8.20	30.5	10	14	7.8	--	--	93

DATE	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
MAR 04...	110	48	10	43	2	7.0	52	99	80	0.2	13
MAY 14...	64	33	8.1	28	1	6.3	52	69	48	0.2	9.9
AUG 14...	37	27	6.3	20	0.9	6.0	56	43	32	0.2	13

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, VOLA-TILE, SUS-PENDED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	ARSENIC DIS-SOLVED (UG/L AS AS)
MAR 04...	330	47	10	0.01	<0.10	0.05	1.2	1.2	0.07	12	<1
MAY 14...	230	18	6	<0.01	<0.10	0.03	0.77	0.8	0.04	8.5	<1
AUG 14...	180	9	5	0.01	<0.10	0.05	0.65	0.7	0.02	11	2

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
MAR 04...	110	<1	<10	1	15	<1	30	<0.1	<1	<1	7
MAY 14...	100	<1	<10	1	9	<1	1	<0.1	<1	<1	10
AUG 14...	76	<1	<10	<1	8	<5	21	<0.1	<1	<1	20

08110100 DAVIDSON CREEK NEAR LYONS, TX

LOCATION.--Lat 30°25'10", long 96°32'24", Burleson County, Hydrologic Unit 12070102, c left bank 83 ft downstream from Farm Road 60, 1.2 mi downstream from Berry Creek, 2.8 mi northeast of Lyons, and 10.7 mi upstream from mouth.

DRAINAGE AREA.--195 mi².

PERIOD OF RECORD.--October 1962 to current year.
Water-quality records.--Sediment records: June 1966 to September 1975.

GAGE.--Water-stage recorder. Datum of gage is 220.26 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. The city of Caldwell discharges sewage effluent into creek above station. Several observations of water temperature were made during the year. A U.S. Army Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--24 years, 66.8 ft³/s (4.65 in/yr), 48,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,200 ft³/s June 24, 1968 (gage height, 18.67 ft); no flow at times most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1902, that of June 24, 1968. Flood in 1947 reached a stage of 17 ft, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 26	0300	*3,050	*15.60	June 8	1700	3,020	15.59

Minimum daily discharge, 0.05 ft³/s Aug. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	1.7	64	6.5	4.8	3.8	2.4	405	50	3.2	.19	1.0
2	2.1	12	80	6.5	4.8	3.7	2.3	1030	19	2.6	.20	16
3	1.6	20	50	6.4	11	3.6	2.2	540	9.6	2.2	.22	8.5
4	1.1	6.7	30	6.3	565	3.6	2.2	93	6.1	2.0	.22	4.9
5	.79	3.1	21	6.2	567	3.8	2.3	20	37	1.8	.22	2.2
6	.63	2.2	17	6.1	359	3.7	2.1	13	27	1.7	.24	3.4
7	.46	1.6	15	6.0	128	3.8	2.1	8.0	192	1.5	.18	17
8	.36	1.4	13	5.8	41	3.6	2.1	5.7	1980	1.5	.13	252
9	.28	1.2	11	5.9	35	3.6	2.0	4.7	1600	1.4	.12	237
10	.24	1.1	12	6.2	28	3.4	2.1	4.2	1120	1.2	.09	39
11	.21	.97	28	6.2	22	3.5	2.1	4.7	933	1.1	.12	12
12	.19	1.0	193	6.7	16	3.8	2.2	5.8	427	1.0	.13	6.4
13	.19	.90	282	7.2	12	3.5	2.5	4.9	121	.86	.11	10
14	.19	.80	67	6.4	10	3.7	2.3	4.6	45	.76	.11	49
15	225	.74	32	6.2	8.7	3.8	2.4	4.5	23	.78	.12	20
16	144	44	22	6.2	8.3	3.6	2.2	133	15	.77	.11	7.3
17	9.8	16	16	9.5	7.8	3.5	1.9	208	130	.79	.09	4.5
18	113	7.5	13	36	7.3	3.4	1.8	665	399	.79	.10	3.5
19	44	11	11	17	7.0	3.0	1.9	477	89	.74	.14	3.2
20	26	6.3	10	11	6.3	3.2	2.6	311	41	.65	.11	4.0
21	91	4.2	10	9.1	5.5	3.0	2.5	108	18	.51	.09	3.5
22	551	3.2	9.1	8.1	5.1	3.1	2.5	23	12	.44	.05	7.6
23	495	2.6	8.6	6.7	4.8	3.0	2.3	13	7.8	.48	.07	4.0
24	60	146	8.0	5.9	4.5	2.8	2.0	8.4	5.9	.51	.15	4.4
25	12	973	7.6	5.6	4.4	2.7	1.8	8.3	6.1	.46	.09	3.7
26	5.1	2100	7.5	5.2	4.3	2.9	1.8	45	4.4	.38	.06	3.2
27	3.2	1320	7.2	4.8	4.2	2.6	1.8	37	27	.37	.10	2.5
28	2.4	1120	6.8	4.8	3.9	2.6	1.8	16	8.3	.40	.45	2.2
29	2.3	368	6.3	4.8	---	2.5	1.8	9.4	4.3	.40	.61	2.1
30	2.0	135	6.4	4.8	---	2.5	2.1	6.4	3.6	.29	.36	2.0
31	1.6	---	6.5	4.7	---	2.4	---	9.7	---	.22	.54	---
TOTAL	1798.34	6312.21	1071.0	238.8	1885.7	101.7	64.1	4234.3	7351.1	31.80	5.52	736.1
MEAN	58.0	210	34.5	7.70	67.3	3.28	2.14	137	245	1.03	.18	24.5
MAX	551	2100	282	36	567	3.8	2.6	1030	1980	3.2	.61	252
MIN	.19	.74	6.3	4.7	3.9	2.4	1.8	4.2	3.6	.22	.05	1.0
CFSM	.30	1.08	.18	.04	.35	.02	.01	.70	1.26	.01	.00	.13
IN.	.34	1.20	.20	.05	.36	.02	.01	.81	1.40	.01	.00	.14
AC-FT	3570	12520	2120	474	3740	202	127	8400	14580	63	11	1460

CAL YR 1985 TOTAL 22272.31 MEAN 61.0 MAX 2100 MIN .00 CFSM .31 IN. 4.25 AC-FT 44180
WTR YR 1986 TOTAL 23830.67 MEAN 65.3 MAX 2100 MIN .05 CFSM .33 IN. 4.55 AC-FT 47270

08110200 BRAZOS RIVER AT WASHINGTON, TX

LOCATION.--Lat 30°21'40", long 96°09'18", Washington County, Hydrologic Unit 12070101, near right bank beneath floor of bridge on State Highway 105, 2.4 mi upstream from Navasota River, 2.5 mi north of Washington, and at mile 228.8.

DRAINAGE AREA.--41,192 mi², approximately, of which 9,566 mi² probably is noncontributing.

PERIOD OF RECORD.--November 1965 to September 1983. Stage only site October 1983 to current year. Gage heights collected in this vicinity since 1915 are contained in reports of the National Weather Service.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 140.13 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated gage-height record for year. Records good. Backwater at times from the Navasota River. Many diversions above station for irrigation, municipal, industrial, and oilfield operations. At times, flow is affected by five upstream reservoirs with a combined capacity of 4,955,000 acre-ft. Flow is also affected at times by discharge from the flood-detention pools of 147 floodwater-retarding structures with a combined detention capacity of 153,200 acre-ft. These structures control runoff from 451 mi² above station. Gage-height telemeter at station.

AVERAGE DISCHARGE.--17 years (1965-83), 5,153 ft³/s (3,733,000 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 82,500 ft³/s Jan. 24, 1968 (gage height, 33.60 ft); maximum gage height, 36.74 ft Apr. 28, 1966 (backwater from Navasota River); minimum discharge, 170 ft³/s Oct. 22, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1856, 62.0 ft Dec. 6, 1913, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 29.35 ft Feb. 6 at 1100 hours; minimum, 2.25 ft Oct. 12, 13.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.18	7.08	17.27	6.97	5.43	7.12	3.67	9.41	7.56	9.54	7.45	3.39
2	7.00	7.36	15.22	6.91	5.13	6.67	3.61	16.64	8.43	9.68	7.20	3.22
3	5.39	7.11	13.92	7.09	4.79	6.58	3.43	16.68	11.33	9.92	7.24	3.15
4	3.87	6.28	13.42	7.00	17.93	6.67	3.47	13.20	12.12	9.20	6.65	2.88
5	3.16	5.64	12.99	7.14	28.35	6.38	3.73	10.77	11.83	8.72	6.31	3.09
6	2.94	5.37	12.38	6.73	28.00	6.27	3.64	9.46	11.99	8.69	5.96	5.75
7	2.75	5.03	11.80	6.47	19.93	6.33	3.89	7.67	13.42	8.66	5.82	7.52
8	2.74	4.74	11.10	6.56	15.84	5.90	3.89	7.46	20.60	8.45	5.35	11.28
9	2.58	4.50	10.06	6.67	16.65	5.67	3.78	7.54	20.60	8.35	6.56	10.42
10	2.47	4.13	9.11	6.78	16.43	5.24	3.65	7.18	18.96	8.31	5.66	9.13
11	2.43	4.18	8.95	6.69	16.18	4.85	4.23	9.72	17.86	8.22	4.85	7.28
12	2.25	4.66	23.00	6.97	15.69	4.75	6.51	15.25	20.38	7.98	4.75	9.70
13	2.59	4.41	25.67	6.11	15.91	4.83	5.51	12.57	23.84	8.03	5.12	10.56
14	2.43	4.57	20.13	5.55	15.38	5.12	4.32	10.69	21.47	8.62	4.79	9.77
15	5.38	4.38	15.45	5.31	14.82	5.41	3.75	10.75	18.71	9.47	4.16	9.52
16	3.90	5.24	13.41	5.24	14.05	5.04	3.49	11.00	17.24	8.38	3.72	9.50
17	4.97	5.60	12.21	5.65	12.91	4.80	4.21	11.36	17.26	7.71	3.67	9.43
18	5.83	5.29	13.30	5.81	12.41	4.53	4.61	15.03	18.19	7.39	3.81	9.42
19	4.73	5.35	13.62	5.83	12.00	4.67	4.47	16.69	18.55	8.48	3.83	9.42
20	3.96	4.77	13.28	5.58	11.73	4.85	3.99	14.50	16.89	8.29	3.83	9.50
21	12.51	4.43	12.99	6.73	11.55	5.21	3.81	11.72	16.33	7.63	3.71	9.39
22	14.02	4.27	12.56	6.39	10.71	5.49	3.47	10.23	14.55	7.36	3.70	8.80
23	10.67	4.00	11.58	5.75	10.54	4.57	3.43	9.37	13.29	7.83	3.66	8.98
24	8.96	6.53	10.50	5.64	9.92	3.99	3.38	9.29	13.18	8.69	3.75	8.11
25	6.99	17.85	9.85	5.67	9.22	3.79	3.42	9.30	12.70	8.27	3.35	7.34
26	6.57	18.38	9.82	6.73	8.53	3.76	3.52	8.67	12.03	8.29	3.17	6.89
27	7.22	16.92	9.38	6.78	8.15	3.63	3.55	10.31	10.95	8.11	3.12	6.95
28	8.12	22.56	9.16	6.68	8.47	3.55	3.57	9.18	10.61	7.70	3.04	6.87
29	8.39	24.87	8.65	6.42	---	4.08	3.35	7.74	10.09	7.52	3.66	6.53
30	7.34	21.13	7.95	6.18	---	3.66	3.20	7.50	9.80	7.55	4.15	6.13
31	6.97	---	7.51	5.83	---	3.49	---	8.11	---	7.47	4.08	---
MAX	14.02	24.87	25.67	7.14	28.35	7.12	6.51	16.69	23.84	9.92	7.45	11.28
MIN	2.25	4.00	7.51	5.24	4.79	3.49	3.20	7.18	7.56	7.36	3.04	2.88

CAL YR 1985	MAX 25.67	MIN 2.25
WTR YR 1986	MAX 28.35	MIN 2.25

08110300 LAKE MEXIA NEAR MEXIA, TX

LOCATION.--Lat 31°38'37", long 96°34'43", Limestone County, Hydrologic Unit 12070103, 550 ft downstream from Cedar Creek, 610 ft upstream from spillway of dam on Navasota River, 1.0 mi upstream from Echo Dam, 1.6 mi upstream from Jacks Creek, 6 mi southwest of Mexia, and 180.0 mi upstream from mouth.

DRAINAGE AREA.--196 mi².

PERIOD OF RECORD.--July 1961 to September 1986 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 420.0 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--The lake is formed by an earthfill dam, 1,645 ft long, including a 520-foot uncontrolled concrete ogee-type spillway near the center of dam. The dam was completed and deliberate impoundment of water began June 5, 1961. Figures given herein represent total contents. Data regarding the dam and lake are given in the following table:

	Gage height (feet)	Capacity (acre-feet)
Top of dam	42.3	-
Crest of spillway	28.3	9,400
Lowest gated outlet (invert)	2.1	531

COOPERATION.--Capacity table was computed from data furnished by Fowler and Grafe, Inc., Consulting Engineers, Dallas. Data was based on a preconstruction survey in 1958 and was not adjusted for borrow in the lake area. Diversions from lake for municipal use were furnished by the Bistone Municipal Water Supply District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 22,460 acre-ft May 11, 1979 (gage height, 35.36 ft); minimum, 3,730 acre-ft Jan. 15, 1964 (gage height, 21.40 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 20,880 acre-ft Feb. 3 at 2000 hours (gage height, 34.65 ft); minimum, 7,070 acre-ft Sept. 29, 30 (gage height, 26.39 ft).

Capacity table (gage height, in feet, and total contents, in acre-feet)

26.0	6,650	32.0	15,410
28.0	8,970	34.0	19,430
30.0	12,010	35.0	21,660

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9230	9470	10210	9460	9380	9360	9070	10630	10340	9210	8120	7470
2	9210	9470	9810	9460	9380	9360	9030	10190	10970	9200	8080	7510
3	9180	9470	9690	9440	19680	9410	9230	9790	9950	9180	8040	7480
4	9160	9440	9640	9440	12490	9410	9230	9630	9730	9160	8010	7470
5	9110	9460	9580	9410	10370	9410	9240	9540	10940	9100	7960	7460
6	9070	9470	9540	9400	9840	9400	9240	9540	10050	9060	7920	7500
7	9030	9460	9540	9400	9730	9380	9230	9510	9770	9030	7890	7480
8	9030	9440	9510	9380	9600	9370	9230	9510	9640	9000	7860	7460
9	9010	9480	9510	9400	9770	9340	9230	9630	9580	8960	7820	7430
10	9030	9440	10500	9400	9790	9370	9540	11880	9560	8910	7810	7420
11	9040	9580	14660	9380	9660	9380	9540	10880	11210	8860	7820	7410
12	9030	9560	11110	9380	9600	9380	9530	9880	10460	8820	7810	7390
13	9000	9540	10030	9380	9560	9370	9500	9660	9830	8780	7760	7370
14	9040	9540	9760	9370	9540	9360	9470	9540	9670	8760	7730	7330
15	9040	9530	9660	9360	9530	9360	9440	9550	9580	8720	7690	7320
16	9010	9570	9610	9430	9530	9340	9410	9540	9540	8680	7670	7310
17	9040	9630	9580	9560	9510	9330	9360	10430	9530	8640	7650	7300
18	9080	9690	9560	9540	9510	9330	9380	10220	9510	8620	7610	7270
19	10850	9670	9540	9510	9510	9280	9690	9780	9500	8590	7590	7270
20	11320	9570	9530	9500	9500	9260	9690	9640	9660	8560	7560	7260
21	9930	9560	9510	9500	9470	9230	9570	9570	9580	8520	7530	7250
22	9670	9540	9530	9470	9440	9200	9510	9520	9540	8480	7510	7240
23	9570	9530	9510	9440	9430	9180	9470	9520	9500	8460	7520	7210
24	9530	11040	9480	9460	9430	9170	9460	9480	9470	8420	7530	7190
25	9500	10240	9470	9460	9430	9160	9430	9500	9440	8380	7510	7150
26	9480	10010	9460	9410	9430	9160	9400	9480	9410	8360	7480	7140
27	9460	12980	9470	9380	9410	9160	9530	9470	9370	8320	7460	7120
28	9480	10960	9470	9380	9380	9140	9510	9440	9340	7700	7530	7110
29	9570	9890	9470	9380	---	9110	9480	9420	9270	8240	7510	7090
30	9530	10360	9470	9360	---	9100	9730	9840	9260	8190	7470	7070
31	9470	---	9460	9380	---	9070	---	10310	---	8170	7440	---
MAX	11320	12980	14660	9560	19680	9410	9730	11880	11210	9210	8120	7510
MIN	9000	9440	9460	9360	9380	9070	9030	9420	9260	7700	7440	7070
(†)	28.35	28.97	28.34	28.29	28.29	28.07	28.53	28.95	28.20	27.36	26.74	26.39
(‡)	+240	+890	-900	-80	0	-310	+660	+580	-1050	-1090	-730	-370

CAL YR 1985 MAX 14660 MIN 6460 (‡) -1,210
WTR YR 1986 MAX 19680 MIN 7070 (‡) -2,160

(†) Gage height, in feet, at end of month.
(‡) Change in content, in acre-feet.

08110325 NAVASOTA RIVER ABOVE GROESBECK, TX

LOCATION.--Lat 31°34'27", long 96°31'14", Limestone County, Hydrologic Unit 12070103, in city of Groesbeck at water supply pumping plant, 1.2 mi downstream from Springfield Lake, 3.7 mi north of Groesbeck, and 161.4 mi upstream from mouth.

DRAINAGE AREA.--239 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1975 to May 1978 (periodic gage-height and low-flow measurements only), June 1978 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 396.65 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair. Flow is partly regulated by Lake Mexia (station 08110300) 7.4 mi upstream (capacity, 9,400 acre-ft) and by Springfield Lake 1.2 mi upstream (approximate capacity, 3,100 acre-ft). There are several diversions above station for irrigation, municipal supply, and oilfield operation (total amount unknown). The city of Groesbeck diverts water from pool at gage for municipal use and returns washwater and sewage effluent into river downstream from gage. Gage-height telemeter at station.

AVERAGE DISCHARGE.--8 years, 97.8 ft^3/s (70,860 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,200 ft^3/s May 11, 1979 (gage height, 15.06 ft); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1910, 26 ft in 1910 and 1944, from information by local residents.

EXTRMES FOR CURRENT YEAR.--Maximum discharge, 23,600 ft^3/s Feb. 3 at 2200 hours (gage height, 14.35 ft); no flow July 30 to Aug. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	32	1260	6.6	3.0	3.4	1.5	931	614	2.2	.00	1.5
2	.00	25	409	6.3	3.0	3.1	1.5	1080	957	2.1	.00	1.5
3	.00	18	139	6.3	7370	4.9	2.3	450	909	1.7	.00	1.5
4	.00	13	82	7.7	13400	7.6	2.2	155	256	1.9	.00	1.6
5	.00	9.6	62	5.3	2740	6.2	2.5	77	419	1.6	.00	1.6
6	.00	8.0	45	3.7	772	5.1	2.9	52	1070	1.4	.00	2.1
7	.00	5.8	34	4.2	221	4.0	2.9	37	337	1.3	.00	1.7
8	.00	3.4	28	4.2	114	3.6	2.9	27	133	1.2	.00	2.0
9	.00	2.9	20	3.3	82	2.9	2.4	27	78	1.2	.00	2.1
10	.00	3.2	165	3.4	162	4.4	33	977	55	1.3	.00	1.8
11	.02	60	8080	3.3	137	4.5	53	2640	529	1.1	.00	1.7
12	.70	76	6720	3.7	83	7.4	48	1000	1620	.95	.00	1.5
13	1.2	52	1290	3.3	59	5.0	38	233	648	.89	.00	1.6
14	1.0	37	320	3.0	55	4.1	31	94	176	.86	.00	1.4
15	.63	32	142	2.8	38	3.9	20	59	82	.64	.00	1.8
16	.01	21	90	2.7	32	3.6	14	40	53	.53	.00	2.5
17	.00	27	65	8.1	29	2.4	8.7	58	35	.47	.00	2.2
18	.00	36	56	13	24	5.6	5.7	667	25	.40	.00	1.9
19	2.7	49	40	14	24	6.4	14	418	20	.41	.00	2.0
20	1030	46	33	12	21	2.4	51	148	19	.38	.00	2.1
21	1130	33	27	11	18	2.1	60	73	27	.32	.00	2.1
22	261	26	22	11	14	1.9	47	47	27	.28	.05	2.5
23	102	20	20	6.9	9.8	2.0	32	32	21	.31	.72	3.1
24	63	1290	19	5.9	9.1	2.0	22	22	16	.24	.41	3.2
25	44	1240	14	7.5	8.3	1.8	16	18	11	.17	.32	3.1
26	31	523	10	7.9	7.8	1.8	10	13	8.3	.10	.17	3.1
27	22	4030	11	3.7	8.5	1.7	20	11	6.4	.09	.31	3.2
28	21	4330	9.8	2.8	7.9	1.5	47	8.8	5.0	.08	1.1	3.2
29	76	1110	8.7	3.1	---	1.7	36	6.4	3.4	.06	.44	2.7
30	85	343	7.4	3.0	---	1.5	36	6.5	2.6	.01	.31	1.2
31	52	---	9.7	2.8	---	1.3	---	203	---	.00	.52	---
TOTAL	2923.26	13501.9	19238.6	182.5	25452.4	109.8	663.5	9610.7	8162.7	24.19	4.35	63.5
MEAN	94.3	450	621	5.89	909	3.54	22.1	310	272	.78	.14	2.12
MAX	1130	4330	8080	14	13400	7.6	60	2640	1620	2.2	1.1	3.2
MIN	.00	2.9	7.4	2.7	3.0	1.3	1.5	6.4	2.6	.00	.00	1.2
AC-FT	5800	26780	38160	362	50480	218	1320	19060	16190	48	8.6	126

CAL YR 1985 TOTAL 53849.59 MEAN 148 MAX 8080 MIN .00 AC-FT 106800
WTR YR 1986 TOTAL 79937.40 MEAN 219 MAX 13400 MIN .00 AC-FT 158600

08110325 NAVASOTA RIVER ABOVE GROESBECK, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: November 1967 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1967 to current year.
WATER TEMPERATURES: November 1967 to current year.

REMARKS.--Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the Geological Survey District office upon request. Prior to October 1978 this station was published as 08110400 Navasota River near Groesbeck.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 6,590 microsiemens Oct. 8, 9, 1969; minimum daily, 71 microsiemens June 4, 1973.
WATER TEMPERATURES: Maximum daily, 38.0°C on several days during July 1974, May 28, 1978; minimum daily, 1.5°C Jan. 10, 1973.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 512 microsiemens Aug. 22; minimum daily, 78 microsiemens Feb. 4.
WATER TEMPERATURES: Maximum daily, 30.0°C July 3; minimum daily, 4.5°C Dec. 14, 15.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
NOV 30...	0800	340	153	--	13.5	66	4	23	2.1
DEC 31...	0800	10	245	--	9.5	110	8	40	2.3
MAR 31...	0800	1.4	474	--	19.5	220	13	83	3.5
APR 22...	1125	50	262	--	20.0	89	5	31	2.9
JUN 30...	0800	2.9	323	7.70	29.5	140	11	50	3.1
SEP 15...	1510	2.0	479	7.70	27.0	210	15	79	3.8

DATE	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
NOV 30...	5.0	0.3	4.4	62	12	4.7	0.1	12	100
DEC 31...	5.9	0.3	3.4	101	11	8.1	0.1	9.4	140
MAR 31...	11	0.3	2.3	209	12	16	0.2	11	260
APR 22...	15	0.7	3.7	84	11	22	0.2	1.2	140
JUN 30...	9.3	0.4	4.5	127	13	12	0.2	11	180
SEP 15...	14	0.4	2.6	198	13	19	0.2	15	270

08110325 NAVASOTA RIVER ABOVE GROESBECK, TX--Continued

MONTHLY AND ANNUAL MEANS AND LOADS FOR OCTOBER 1985 TO SEPTEMBER 1986

MONTH YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-MHOS)	DIS-SOLVED SOLIDS (MG/L)	DIS-SOLVED SOLIDS (TONS)	DIS-SOLVED CHLORIDE (MG/L)	DIS-SOLVED CHLORIDE (TONS)	DIS-SOLVED SULFATE (MG/L)	DIS-SOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT. 1985	2923.26	232	130	1030	13	100	13	101	90
NOV. 1985	13501.9	159	89	3230	8.3	301	9.7	354	60
DEC. 1985	19238.6	113	63	3250	5.7	294	7.3	381	41
JAN. 1986	182.5	315	178	88	18	8.9	15	7.4	130
FEB. 1986	25452.4	114	63	4340	5.8	396	7.3	499	42
MAR. 1986	109.8	393	223	66	24	7.0	16	4.8	160
APR. 1986	663.5	310	175	313	18	32	15	26	120
MAY 1986	9610.7	257	144	3750	14	369	14	352	100
JUNE 1986	8162.7	236	132	2910	13	283	13	285	91
JULY 1986	24.19	373	211	14	22	1.4	16	1.0	150
AUG. 1986	4.35	474	271	3.2	30	0.4	16	0.2	200
SEPT 1986	63.5	473	270	46	30	5.1	16	2.8	200
TOTAL	79937.40	**	**	19000	**	1800	**	2010	**
WTD.AVG.	219	158	88	**	8.3	**	9.3	**	60

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
EQUIVALENT MEAN

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	272	125	261	358	342	489	297	265	328	---	488
2	---	260	148	270	364	313	490	245	244	334	---	476
3	---	257	161	274	165	326	484	262	232	338	---	458
4	---	259	165	295	78	347	480	276	233	344	---	473
5	---	262	170	300	116	361	490	289	241	355	---	486
6	---	264	174	306	127	376	498	296	227	367	---	476
7	---	270	177	305	143	375	503	295	229	368	---	482
8	---	271	186	308	147	370	510	297	234	373	---	479
9	---	270	208	310	162	375	506	305	243	377	---	489
10	---	278	195	311	150	382	460	290	253	378	---	488
11	475	250	110	320	163	398	409	262	240	380	---	487
12	458	243	104	322	218	395	285	220	225	393	---	485
13	445	246	106	328	211	410	255	224	222	409	---	476
14	455	248	115	337	212	412	249	236	232	416	---	445
15	472	247	121	339	215	411	263	242	239	430	---	474
16	480	251	129	365	219	412	272	256	248	400	---	473
17	---	247	134	360	228	424	280	254	253	419	---	471
18	---	248	139	352	235	408	311	225	260	418	---	466
19	430	250	146	349	240	417	302	223	268	420	---	449
20	235	249	152	295	250	425	270	229	276	421	---	467
21	228	251	164	292	256	426	260	243	283	423	---	468
22	223	253	174	289	259	420	261	250	285	428	512	470
23	224	251	186	305	266	415	266	259	283	427	470	471
24	233	185	200	323	269	424	280	270	289	432	478	472
25	240	180	202	313	299	433	298	280	290	437	483	473
26	244	192	207	324	306	440	316	295	297	444	489	466
27	252	150	206	326	328	449	326	302	316	447	475	473
28	256	140	230	337	334	440	331	318	311	448	452	471
29	254	148	227	340	---	453	324	314	324	443	485	473
30	242	153	243	348	---	463	320	316	323	453	486	472
31	240	---	245	356	---	474	---	280	---	---	490	---
MEAN	320	235	169	318	226	404	360	269	262	402	482	473

08110325 NAVASOTA RIVER ABOVE GROESBECK, TX--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	16.0	14.0	10.0	13.0	14.5	20.0	23.0	25.5	29.5	---	27.5
2	---	15.5	11.0	10.0	14.5	13.5	20.5	22.0	25.5	29.5	---	27.0
3	---	15.5	10.0	9.5	15.5	15.0	20.0	21.0	26.5	30.0	---	27.0
4	---	15.5	10.0	10.5	17.0	15.0	20.5	22.0	27.0	29.5	---	27.5
5	---	15.5	10.0	10.5	17.0	15.0	21.5	23.0	27.0	29.0	---	27.5
6	---	15.5	10.0	10.5	16.0	15.5	22.0	23.0	26.5	29.5	---	28.0
7	---	15.5	10.5	10.5	15.5	16.0	22.5	23.5	26.5	29.5	---	27.5
8	---	16.0	10.5	10.0	14.5	16.0	22.5	24.0	26.5	29.0	---	27.5
9	---	16.0	12.0	9.5	12.5	16.0	23.0	24.0	27.0	29.0	---	27.5
10	---	17.5	13.5	9.5	10.0	17.5	21.0	24.5	27.5	29.0	---	27.5
11	---	18.0	12.0	9.5	7.5	18.5	20.0	23.5	28.5	29.0	---	27.5
12	---	19.5	7.0	9.5	7.5	18.0	20.0	24.0	28.5	28.5	---	27.5
13	---	19.5	5.5	9.5	7.0	18.5	21.0	25.0	27.5	29.0	---	27.5
14	---	20.0	4.5	9.5	8.0	18.0	21.5	25.5	28.0	29.0	---	27.5
15	---	21.0	4.5	9.5	8.5	18.5	21.0	25.5	28.0	29.0	---	27.5
16	---	19.5	5.0	10.0	10.0	18.0	20.5	25.5	29.0	29.0	---	27.5
17	---	18.5	6.0	10.5	13.0	18.5	21.0	25.5	29.0	29.0	---	27.5
18	---	18.5	6.5	13.0	14.5	18.5	20.5	28.0	29.0	29.0	---	27.5
19	---	19.5	---	12.5	16.5	19.0	21.5	22.0	29.0	29.0	---	28.0
20	23.0	19.0	7.5	12.5	17.5	18.0	20.5	23.0	29.0	29.5	---	28.0
21	23.5	17.5	7.5	13.5	17.0	17.5	21.0	23.5	29.0	29.5	---	27.5
22	23.0	16.5	7.5	14.5	15.0	17.0	21.0	23.5	29.0	29.5	---	27.5
23	22.5	16.0	8.5	13.0	14.0	16.5	21.5	24.5	29.0	29.5	---	27.5
24	23.5	16.5	9.0	12.5	14.0	17.0	21.5	25.5	29.5	29.5	---	27.5
25	23.5	17.0	9.0	12.5	15.0	17.0	22.0	25.5	29.5	29.5	---	27.5
26	23.5	17.5	8.5	12.5	15.5	18.0	22.5	25.0	29.5	29.5	---	27.5
27	23.0	19.0	8.5	12.0	17.0	19.0	22.5	24.5	29.0	29.5	---	27.5
28	22.5	16.0	9.5	11.5	15.5	19.0	22.5	24.0	29.5	29.5	---	28.0
29	21.5	14.0	9.0	11.5	---	19.5	23.0	24.0	29.5	29.5	28.0	27.5
30	22.0	13.5	9.0	12.5	---	19.5	23.0	25.0	29.5	29.5	27.5	27.5
31	16.5	---	9.5	12.5	---	19.5	---	24.5	---	---	27.0	---
MEAN	22.5	17.0	9.0	11.0	13.5	17.5	21.5	24.0	28.0	29.5	27.5	27.5

08110430 BIG CREEK NEAR NEAR FREESTONE, TX

LOCATION.--Lat 31°30'25", long 96°19'31", Limestone County, Hydrologic Unit 12070103, 16 ft to left and 62 ft downstream from left end of bridge on State Highway 164, 5.1 mi southwest of Freestone, and 8.2 mi upstream from mouth.

DRAINAGE AREA.--57.1 mi².

PERIOD OF RECORD.--July 1975 to June 1978 (periodic gage-height and low-flow measurements only). July 1978 to current year.

GAGE.--Water-stage recorder. Datum of gage is 362.94 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 25, 1985, at site 62 ft upstream at the same datum.

REMARKS.--Estimated daily discharges: Aug. 28 to Sept. 23. Records good except for estimated discharges, which are fair. Several observations of water temperature were made during the year. Satellite telemeter at station.

AVERAGE DISCHARGE.--8 years, 36.4 ft³/s (8.66 in/yr), 26,370 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,160 ft³/s Dec. 3, 1983 (gage height, 14.13 ft); no flow at times in 1978, 1980, 1983-1986.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1950, 19 ft in April 1957, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 25	0500	996	12.93	Feb. 4	0600	*1,870	*13.89
Nov. 27	2200	1,250	13.26	May 2	1900	654	12.27
Dec. 1	0730	630	12.20	May 11	2000	586	12.02
Dec. 11	2030	1,270	13.28				

Minimum discharge, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	40	542	9.3	4.7	5.4	1.1	209	6.2	.12	.00	.00
2	.00	9.9	541	9.3	5.2	4.9	.78	534	13	.09	.00	.00
3	.00	5.3	234	8.6	314	5.5	1.2	464	79	.07	.00	.00
4	.00	3.9	58	8.3	1340	16	4.3	151	20	.04	.00	.00
5	.00	3.5	31	8.0	685	13	6.4	57	8.3	.02	.00	.00
6	.00	2.4	21	7.8	644	8.2	3.2	33	27	.02	.00	.00
7	.00	1.9	16	7.8	424	5.9	2.1	20	16	.01	.00	.00
8	.00	1.5	13	7.8	153	5.0	1.9	14	16	.00	.00	.00
9	.00	1.2	11	7.6	110	4.7	1.8	13	22	.00	.00	.00
10	.00	1.2	11	7.5	226	4.7	57	264	9.6	.00	.00	.00
11	.00	50	692	7.3	161	4.5	113	537	122	.00	.00	.00
12	.00	163	947	7.2	77	5.6	35	451	171	.00	.00	.00
13	.00	70	494	7.0	51	8.1	14	125	47	.00	.00	.00
14	.00	15	216	6.9	39	6.8	7.9	48	15	.00	.00	.00
15	.00	7.4	69	6.7	23	4.4	4.5	26	6.8	.00	.00	.00
16	1.5	5.2	39	6.9	18	3.7	2.6	18	3.9	.00	.00	.00
17	.20	4.1	28	6.7	17	3.1	1.9	119	3.9	.00	.00	.00
18	.23	19	23	8.9	15	3.0	1.5	449	6.7	.00	.00	.00
19	.88	27	19	8.7	14	5.0	21	261	4.6	.00	.00	.00
20	22	17	16	7.5	12	4.3	230	73	3.2	.00	.00	.00
21	14	14	15	6.8	11	2.5	115	38	2.3	.00	.00	.00
22	2.3	8.1	13	6.3	8.9	1.9	25	22	1.7	.00	.00	.00
23	.85	4.3	13	5.6	7.7	1.7	11	14	1.4	.00	.00	.00
24	.40	420	13	5.2	7.2	1.8	7.0	9.6	1.1	.00	.00	.00
25	.26	834	12	5.1	6.7	1.8	4.5	7.3	.86	.00	.00	.00
26	.17	483	11	5.0	7.0	1.5	2.8	5.9	.66	.00	.00	.00
27	.09	704	10	4.7	6.5	1.5	58	5.5	.43	.00	.00	.00
28	.17	936	9.6	4.6	5.7	1.4	219	5.1	.29	.00	.00	.00
29	53	467	10	4.5	---	1.1	98	4.2	.23	.00	.00	.00
30	181	188	9.8	4.5	---	1.3	26	3.1	.17	.00	.00	.00
31	85	---	9.6	4.8	---	1.1	---	3.0	---	.00	.00	---
TOTAL	362.05	4506.9	4147.0	212.9	4393.6	139.4	1077.48	3983.7	610.34	.37	.00	.00
MEAN	11.7	150	134	6.87	157	4.50	35.9	129	20.3	.01	.00	.00
MAX	181	936	947	9.3	1340	16	230	537	171	.12	.00	.00
MIN	.00	1.2	9.6	4.5	4.7	1.1	.78	3.0	.17	.00	.00	.00
CFSM	.20	2.63	2.35	.12	2.75	.08	.63	2.26	.36	.00	.00	.00
IN.	.24	2.94	2.70	.14	2.86	.09	.70	2.60	.40	.00	.00	.00
AC-FT	718	8940	8230	422	8710	276	2140	7900	1210	.7	.00	.00

CAL YR 1985 TOTAL 16966.19 MEAN 46.5 MAX 1030 MIN .00 CFSM .81 IN. 11.05 AC-FT 33650
WTR YR 1986 TOTAL 19433.74 MEAN 53.2 MAX 1340 MIN .00 CFSM .93 IN. 12.66 AC-FT 38550

08110470 LAKE LIMESTONE NEAR MARQUEZ, TX

LOCATION.--Lat 31°19'30", long 96°19'08", Leon County, Hydrologic Unit 12070103, in left end bypass pier of Sterling C. Robertson Dam on the Navasota River, 7.5 mi northwest of Marquez, and 124 mi upstream from mouth.

DRAINAGE AREA.--675 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1978 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARK.--The lake is formed by a rolled earthfill dam 11,395 ft long, including the spillway. The lake was built for water conservation. Deliberate impoundment began on Oct. 16, 1978. The spillway is an uncontrolled broad-crested weir 3,000 ft long located near left end of dam. The spillway for normal flood releases is a gated concrete gravity structure with an ogee weir section and stilling basin located near center of dam. It is controlled by five 40- by 28-foot tainter gates. There are two 4- by 8-foot slide gates located in each of the two center piers of the spillway that discharge into the stilling basin. These gates can also be opened during extreme floods. A low-flow outlet, consisting of a 10-inch-diameter cast iron pipe, is located in the left end of pier. In addition, there are two 36-inch (outside diameter) steel cylinder pipes located in the right end pier for water supply releases. The lowest invert for low flow and water supply releases is at elevation 325.50 ft. The city of Mexia releases various amounts of sewage effluent into stream above lake. Gage-height telemeter at station. Figures given herein represent total contents. Data regarding dam and lake are given in the following table:

	Elevation (feet)	Capacity (acre-feet)
Top of dam	380.0	-
Design flood	370.0	334,735
Crest of spillway	369.6	327,760
Top of gates	365.0	253,905
Top of conservation pool	363.0	225,445
Concrete gated spillway	337.0	21,125
Lowest gated outlet (invert)	322.0	265

COOPERATION.--Records of daily lake elevations are obtained in cooperation with the Brazos River Authority. Area and capacity tables were furnished by the Brazos River Authority and are based on Geological Survey topographic maps.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 241,100 acre-ft May 30, 1979 (elevation, 364.12 ft); minimum, 10,740 acre-ft Nov. 30, 1978 (elevation, 332.63 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 240,300 acre-ft Feb. 4 at 1200 hours (elevation, 364.06 ft); minimum, 190,200 acre-ft Oct. 8 at 1200 hours (elevation, 360.29 ft).

Capacity table (elevation, in feet, and total contents, in acre-feet)

360.0	186,600	364.0	239,400
362.0	212,000	365.0	253,900

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	192300	208200	230500	225400	224600	223400	222200	229500	223600	220200	210600	204100
2	192100	208600	231600	225400	224600	223800	222200	230300	224400	220300	210300	204400
3	191800	208500	230200	225300	231200	224400	222500	227400	224900	220100	209800	204200
4	192300	208600	229200	225400	231900	224200	222200	224600	224500	219500	209400	204200
5	191400	208400	226700	225000	223800	224500	222800	224500	223400	219100	208900	204000
6	190900	209000	224600	225000	222100	224100	222800	225000	223400	219000	208600	204600
7	190600	208500	223000	225300	223700	223800	222600	225000	223600	218700	208400	204800
8	190600	208100	221900	225300	223600	223800	224000	225300	222400	218600	208000	204100
9	190800	208200	222500	225000	223300	223600	223800	224100	222100	218300	207500	203700
10	190800	209200	225400	225000	224000	224500	224800	229900	222200	217600	207500	203500
11	190600	212100	234400	224900	223000	225200	225200	232000	223600	217100	207200	203700
12	190600	214000	228600	225000	223000	224800	225300	231900	225300	217100	207000	203300
13	190500	214300	224400	224900	222600	224500	224400	227000	225000	216800	206600	202900
14	192700	214700	223600	224800	223600	224500	224900	225400	223400	216600	206200	202700
15	193600	215400	223700	224800	223300	224400	224100	225000	222900	216400	205800	202200
16	193400	215400	224200	225200	224000	224200	223400	224200	222800	216000	205700	201800
17	193700	215800	224500	225300	224200	225000	222400	226400	222800	215800	205500	201500
18	194100	215600	224900	225400	224500	225400	222500	226600	222800	215500	205300	201400
19	196400	218500	224900	225300	224600	224600	224900	223800	222800	215400	204800	201300
20	197900	216700	225000	225300	225700	223800	224100	222100	222900	215000	204500	201000
21	201000	216400	225000	225300	225000	223400	224100	221500	222800	214700	204100	201400
22	203300	216600	225400	225400	224200	222900	224100	221700	222600	214300	203700	201400
23	204000	217000	225400	225000	224200	223000	223800	221800	222600	213900	204000	201100
24	204100	233300	225400	225200	224400	222800	223800	221500	222400	213500	204200	200600
25	204200	224800	225400	225600	224400	222800	223700	222100	222200	213200	204100	200500
26	204400	224800	225200	225400	224500	223000	223600	221900	221800	212800	203700	200400
27	204500	231300	225300	224400	225000	223000	227300	222100	221700	212100	203600	200100
28	206200	234100	225400	224400	224100	223000	226800	221700	221400	212000	204000	200200
29	207600	225700	225300	224900	---	222800	225000	221700	221100	211600	203500	199800
30	208500	224800	225300	224500	---	222600	226800	221700	220700	211400	203100	199600
31	207700	---	225600	224500	---	222400	---	221900	---	211000	202800	---
MAX	208500	234100	234400	225600	231900	225400	227300	232000	225300	220300	210600	204800
MIN	190500	208100	221900	224400	222100	222400	222200	221500	220700	211000	202800	199600
(†)	361.67	362.95	363.01	362.93	362.90	362.77	363.10	362.74	362.65	361.92	361.29	361.04
(‡)	+14,800	+17,100	+800	-1,100	-400	-1,700	+4,400	-4,900	-1,200	-9,700	-8,200	-3,200

CAL YR 1985 MAX 236300 MIN 190500 (‡) -2,600
WTR YR 1986 MAX 234400 MIN 190500 (‡) +6,700

(†) Elevation, in feet, at end of month.
(‡) Change in contents, in acre-feet.

08110470 LAKE LIMESTONE NEAR MARQUEZ, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: October 1979 to current year.

311937096194601 - LAKE LIMESTONE SITE AR

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
FEB							
20...	1210	1.00	174	7.60	13.0	8.1	79
20...	1212	10.0	174	7.50	12.0	8.0	76
20...	1213	20.0	175	7.50	12.0	7.9	75
20...	1215	30.0	175	7.40	11.5	7.4	69
20...	1217	37.0	176	7.40	11.5	7.1	67
MAY							
06...	1540	1.00	190	7.40	21.5	8.1	94
06...	1542	10.0	190	7.40	21.0	8.2	94
06...	1544	20.0	190	7.40	21.0	8.0	92
06...	1546	30.0	190	7.30	21.0	8.0	92
06...	1548	40.0	190	7.20	20.5	7.6	86
AUG							
07...	1530	1.00	228	7.10	29.5	5.3	--
07...	1532	10.0	229	7.00	29.0	4.3	--
07...	1534	20.0	229	6.70	28.5	1.4	--
07...	1536	30.0	235	6.60	26.5	0.2	3
07...	1538	37.0	256	6.70	24.5	0.2	2

311941096191401 - LAKE LIMESTONE SITE AC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CACO3)
FEB									
20...	1140	1.00	173	7.60	13.5	0.3	8.2	81	58
20...	1142	10.0	173	7.50	12.5	--	8.1	78	--
20...	1144	20.0	174	7.50	12.0	--	7.8	74	--
20...	1146	30.0	175	7.40	11.5	--	7.3	69	--
20...	1148	40.0	175	7.30	11.5	--	6.6	62	--
20...	1149	45.0	178	7.30	11.5	--	6.0	56	58
MAY									
06...	1600	1.00	185	7.50	21.5	0.4	8.2	95	55
06...	1602	10.0	185	7.50	21.5	--	8.1	94	--
06...	1604	20.0	185	7.50	21.0	--	8.1	93	--
06...	1606	30.0	185	7.30	21.0	--	7.7	88	--
06...	1608	42.0	191	7.00	20.0	--	5.7	64	59
AUG									
07...	1500	1.00	230	7.20	29.5	1.80	5.8	--	69
07...	1502	10.0	230	7.20	29.5	--	5.5	--	--
07...	1503	15.0	228	7.00	29.0	--	3.8	--	--
07...	1504	20.0	230	6.60	28.5	--	0.2	--	--
07...	1506	30.0	238	6.60	26.0	--	0.2	2	--
07...	1508	40.0	274	6.70	23.0	--	0.2	2	--
07...	1510	48.0	280	6.70	22.5	--	0.2	2	78

DATE	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
FEB									
20...	9	18	3.1	10	0.6	3.8	49	13	16
20...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
20...	8	18	3.1	10	0.6	3.8	50	13	16
MAY									
06...	7	17	3.1	10	0.6	3.8	48	16	12
06...	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--
06...	7	18	3.3	10	0.6	3.9	52	16	11
AUG									
07...	10	21	3.9	14	0.8	4.4	59	17	20
07...	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--
07...	0	24	4.4	13	0.7	4.2	95	12	18

LAKE LIMESTONE NEAR MARQUEZ, TX--Continued

311941096191401 - LAKE LIMESTONE SITE AC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
FEB								
20...	0.1	6.0	99	0.40	0.7	0.08	25	2
20...	--	--	--	--	--	--	--	--
20...	--	--	--	0.40	0.8	0.08	40	40
20...	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--
20...	--	6.0	100	0.40	1.0	0.11	32	270
MAY								
06...	0.1	5.8	97	0.50	0.5	0.05	47	3
06...	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--
06...	--	--	--	0.50	0.6	0.06	250	20
06...	--	6.9	100	0.50	0.9	0.09	65	580
AUG								
07...	0.2	3.9	120	<0.10	0.5	0.03	14	24
07...	--	--	--	<0.10	0.7	0.03	30	60
07...	--	--	--	--	--	--	--	--
07...	--	--	--	<0.10	0.6	0.08	480	1000
07...	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--
07...	--	13	160	<0.10	2.8	0.41	6400	4800

312458096205101 - LAKE LIMESTONE SITE BC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	HARDNESS (MG/L AS CACO3)
FEB									
20...	1104	1.00	160	7.50	13.0	0.3	8.2	80	51
20...	1106	10.0	148	7.30	13.0	--	7.2	70	--
20...	1108	20.0	148	7.20	12.5	--	6.7	64	--
20...	1110	30.0	151	7.20	12.0	--	5.9	56	--
20...	1111	34.0	152	7.20	12.0	--	5.7	54	48
MAY									
06...	1420	1.00	224	7.40	22.5	0.3	7.9	93	62
06...	1422	10.0	224	7.40	22.5	--	7.9	93	--
06...	1424	20.0	224	7.40	22.5	--	7.9	93	--
06...	1426	30.0	224	7.40	22.5	--	7.9	93	65
AUG									
07...	1350	1.00	242	7.90	30.5	1.00	7.2	--	75
07...	1352	10.0	242	7.60	30.0	--	6.6	--	--
07...	1354	20.0	242	7.30	30.0	--	5.5	--	--
07...	1356	27.0	242	7.20	30.0	--	5.0	--	74

DATE	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)
FEB								
20...	7	16	2.7	9.3	0.6	3.6	44	12
20...	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--
20...	5	15	2.6	8.6	0.6	3.6	43	12
MAY								
06...	10	19	3.5	13	0.7	3.9	52	20
06...	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--
06...	13	20	3.6	14	0.8	4.0	52	20
AUG								
07...	11	23	4.2	15	0.8	4.6	64	19
07...	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--
07...	12	23	4.1	15	0.8	4.6	62	17

LAKE LIMESTONE NEAR MARQUEZ, TX--Continued

312458096205101 - LAKE LIMESTONE SITE BC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
FEB								
20...	14	5.6	90	0.30	0.8	0.09	31	4
20...	--	--	--	--	--	--	--	--
20...	--	--	--	0.30	1.4	0.13	100	80
20...	--	--	--	--	--	--	--	--
20...	13	6.1	87	0.30	2.8	0.21	52	100
MAY								
06...	18	5.3	110	0.40	0.7	0.07	48	<1
06...	--	--	--	--	--	--	--	--
06...	--	--	--	0.40	0.7	0.07	70	<10
06...	18	5.7	120	0.40	0.8	0.08	150	9
AUG								
07...	21	4.2	130	<0.10	0.7	0.04	60	7
07...	--	--	--	<0.10	0.6	0.04	10	20
07...	--	--	--	--	--	--	--	--
07...	21	4.4	130	<0.10	1.1	0.09	22	180

312625096205901 - LAKE LIMESTONE SITE CC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB							
20...	1041	1.00	14[illegible]	7.20	15.0	7.9	80
20...	1042	5.00	146	7.10	14.0	7.6	75
20...	1044	10.0	146	7.10	13.5	6.8	67
20...	1046	17.0	149	7.10	13.0	6.7	65
MAY							
06...	1330	1.00	213	7.40	23.0	7.1	85
06...	1332	10.0	213	7.30	22.5	7.3	86
06...	1334	19.0	213	7.20	22.5	6.9	82
AUG							
07...	1315	1.00	245	7.90	30.0	7.2	--
07...	1317	10.0	245	7.80	30.0	7.0	--
07...	1319	16.0	245	7.50	30.0	6.2	--

312622096224201 - LAKE LIMESTONE SITE DC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
FEB							
20...	0930	1.00	134	7.40	15.0	7.4	75
20...	0932	10.0	139	7.20	13.0	7.0	68
20...	0934	22.0	151	7.20	12.5	6.3	60
MAY							
06...	1710	1.00	257	7.70	23.0	8.2	98
06...	1712	10.0	261	7.60	23.0	7.9	94
06...	1714	22.0	266	7.40	22.5	7.7	91
AUG							
07...	1215	1.00	256	8.00	29.5	7.0	--
07...	1217	10.0	256	8.00	29.5	7.0	--
07...	1219	20.0	257	7.90	29.5	6.7	--

LAKE LIMESTONE NEAR MARQUEZ, TX--Continued

312726096240001 - LAKE LIMESTONE SITE EC

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	HARDNESS (MG/L AS CACO3)
FEB									
20...	0954	1.00	154	7.60	17.0	0.3	7.8	83	54
20...	0955	5.00	155	7.20	13.5	--	5.8	57	--
20...	0956	10.0	155	7.10	12.5	--	4.6	44	--
20...	0957	15.0	159	7.00	11.5	--	4.0	38	59
MAY									
06...	1810	1.00	208	7.50	23.5	0.2	7.8	94	65
06...	1812	10.0	225	7.30	22.5	--	7.1	84	--
06...	1814	19.0	225	7.20	22.5	--	6.4	76	68
AUG									
07...	1230	1.00	287	7.80	30.0	0.7	7.0	--	96
07...	1232	10.0	285	7.40	29.5	--	5.4	--	--
07...	1233	15.0	285	7.40	29.5	--	5.0	--	90

DATE	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)
FEB								
20...	6	18	2.3	7.2	0.4	3.3	48	12
20...	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--
20...	3	19	2.7	7.9	0.5	3.3	56	12
MAY								
06...	4	21	3.1	12	0.7	4.4	61	15
06...	--	--	--	--	--	--	--	--
06...	2	22	3.2	13	0.7	4.3	66	15
AUG								
07...	16	31	4.5	18	0.8	5.3	80	18
07...	--	--	--	--	--	--	--	--
07...	11	29	4.2	17	0.8	5.1	79	18

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
FEB								
20...	9.1	7.0	88	0.40	1.0	0.12	56	5
20...	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--
20...	12	7.9	99	0.30	1.5	0.14	37	150
MAY								
06...	14	7.7	110	0.10	1.5	0.17	56	<1
06...	--	--	--	--	--	--	--	--
06...	16	7.6	120	0.20	1.5	0.15	97	16
AUG								
07...	25	7.1	160	<0.10	1.3	0.10	11	3
07...	--	--	--	--	--	--	--	--
07...	24	6.7	150	<0.10	1.1	0.10	34	31

08110500 NAVASOTA RIVER NEAR EASTERLY, TX

LOCATION.--Lat 31°10'12", long 96°17'51", Leon-Robertson County line, Hydrologic Unit 12070103, at left downstream end of bridge on U.S. Highway 79, 1.0 mi upstream from Missouri Pacific Railroad Co. bridge, 7 mi northeast of Easterly, and 105.7 mi upstream from mouth.

DRAINAGE AREA.--968 mi².

PERIOD OF RECORD.--March 1924 to current year.

REVISED RECORDS.--WSP 898: 1924, 1926-27, 1928(M), 1929-30, 1931(M). WSP 1512: 1932(M), 1936. WDR TX-76-2: Drainage area. WDR TX-78-2: 1974(M), 1977.

GAGE.--Water-stage recorder Datum of gage is 271.46 ft above National Geodetic Vertical Datum of 1929. Prior to June 11, 1932, nonrecording gage at railroad bridge 1.0 mi downstream at 19.86-foot higher datum. June 11, 1932, to Sept. 30, 1978, water-stage recorder 46 ft upstream at 5.00-foot higher datum.

REMARKS.--Estimated daily discharges: Feb. 8-12. Records fair except for estimated daily discharges, which are poor. Flow is largely regulated by Lake Mexia and Lake Limestone (stations 08110300 and 08110470). There are numerous diversions above station for irrigation, municipal supply, and oilfield operation. Satellite telemeter at station.

AVERAGE DISCHARGE.--36 years (water years 1925-60) unregulated, 406 ft³/s (5.70 in/yr), 294,100 acre-ft/yr; 26 years (water years 1961-86) regulated, 438 ft³/s (6.14 in/yr), 317,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 60,300 ft³/s May 2, 1944 (gage height, 27.13 ft); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1845, 29 ft in June 1899, from information by local residents (discharge, 90,000 ft³/s), from rating curve extended above 60,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 32,300 ft³/s Feb. 5 at 0800 hours (gage height, 24.44 ft); minimum daily, 0.36 ft³/s Oct. 12-13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	35	4850	31	24	40	56	1010	165	18	24	29
2	1.7	22	1750	30	25	36	54	2250	156	16	22	39
3	.86	25	1850	28	79	36	53	3700	601	15	22	28
4	.62	20	1670	27	9010	40	54	4220	844	14	22	25
5	.47	11	1230	29	29400	42	52	3470	1090	13	22	24
6	.44	6.5	1050	31	12000	46	53	746	1340	13	24	34
7	.40	4.0	1000	27	5260	44	56	96	1290	12	23	49
8	.40	2.7	981	26	2680	42	56	71	1280	11	23	32
9	.40	2.1	420	27	1660	42	64	61	1040	11	23	24
10	.40	1.7	72	26	1250	44	101	539	273	7.7	24	23
11	.40	882	651	26	1100	45	265	1670	104	5.4	28	23
12	.36	1000	7080	27	770	49	328	2890	793	4.4	21	23
13	.36	455	17400	26	183	52	255	4020	1160	3.7	20	23
14	.92	108	9520	25	94	55	727	4030	1720	3.3	20	22
15	27	47	3600	25	80	53	216	2360	1440	3.2	18	21
16	41	52	702	25	72	51	209	482	317	3.7	18	18
17	7.7	85	105	32	67	51	206	443	63	5.4	19	5.6
18	4.6	74	73	39	63	54	202	1490	45	20	18	2.9
19	3.4	63	61	36	59	56	98	2470	46	21	19	2.6
20	22	138	52	34	54	61	249	3090	40	22	20	4.8
21	30	83	46	31	48	57	630	2130	43	20	20	8.1
22	69	44	42	28	48	54	187	331	63	17	19	10
23	65	33	41	28	42	53	56	81	39	19	20	13
24	35	940	40	27	41	52	45	62	29	24	23	13
25	15	17000	38	26	41	52	39	53	25	26	21	9.8
26	6.9	12900	35	30	41	53	36	48	22	29	21	8.7
27	3.3	5590	32	28	41	55	34	45	22	30	23	9.0
28	3.6	5480	31	27	39	59	495	43	21	32	24	9.3
29	48	10500	31	25	---	57	1350	39	18	28	24	9.9
30	93	9540	31	24	---	57	1190	37	18	23	23	9.9
31	60	---	32	23	---	56	---	57	---	23	23	---
TOTAL	549.83	65144.0	54516	874	64271	1544	6916	42034	14017	493.8	671	553.6
MEAN	17.7	2171	1759	28.2	2295	49.8	231	1356	467	15.9	21.6	18.5
MAX	93	17000	17400	39	29400	61	1350	4220	1720	32	28	49
MIN	.36	1.7	31	23	24	36	34	37	18	3.2	18	2.6
CFSM	.02	2.24	1.82	.03	2.37	.05	.24	1.40	.48	.02	.02	.02
IN.	.02	2.50	2.10	.03	2.47	.06	.27	1.62	.54	.02	.03	.02
AC-FT	1090	129200	108100	1730	127500	3060	13720	83370	27800	979	1330	1100

CAL YR 1985 TOTAL 209663.45 MEAN 574 MAX 17400 MIN .36 CFSM .59 IN. 8.06 AC-FT 415900
WTR YR 1986 TOTAL 251584.23 MEAN 689 MAX 29400 MIN .36 CFSM .71 IN. 9.67 AC-FT 499000

08111000 NAVASOTA RIVER NEAR BRYAN, TX

LOCATION.--Lat 30°52'10", long 96°11'32", Brazos-Madison County line, Hydrologic Unit 12070103, on right bank at upstream side of bridge on U.S. Highway 190, 2.5 mi upstream from Shepard Creek, 17 mi northeast of Bryan, and 68.4 mi upstream from mouth.

DRAINAGE AREA.--1,454 mi^2.

PERIOD OF RECORD.--January 1951 to current year.
Water-quality records: Chemical and biochemical analyses: October 1958 to September 1981. Sediment records: October 1973 to September 1981.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 224.64 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow is largely regulated by Lake Mexia and Lake Limestone (stations 08110300 and 08110470). There are numerous diversions above the station for irrigation, municipal, and oilfield operations. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--9 years (water years 1952-60) unregulated, 437 ft^3/s (316,600 acre-ft/yr); 26 years (water years 1961-86) regulated, 595 ft^3/s (431,100 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,200 ft^3/s Apr. 29, 1966 (gage height, 16.57 ft); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since about 1840, 19.5 ft in June 1899, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 27,000 ft^3/s Feb. 6, at 1700 (gage height, 15.73 ft); minimum daily, 12 ft^3/s Oct. 10-14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	249	10300	100	73	83	57	1720	73	41	29	33
2	81	184	8620	100	73	80	57	2650	134	37	26	34
3	58	142	5890	100	79	81	58	2240	242	35	25	36
4	36	128	4100	98	213	81	57	2070	353	33	24	46
5	23	119	2830	95	690	84	56	2330	702	31	24	43
6	17	99	2300	93	17300	82	58	3040	896	30	24	39
7	15	74	1920	91	18600	81	59	3870	1200	28	24	39
8	14	56	1570	92	9900	80	60	3040	1610	27	24	47
9	13	47	1360	92	6100	79	58	1510	1740	26	25	68
10	12	41	1210	93	4310	77	67	520	1680	25	25	63
11	12	268	889	96	2700	77	120	372	1530	24	24	51
12	12	1020	816	95	1970	76	274	857	1210	24	25	42
13	12	1320	1240	96	1680	79	394	1290	822	22	25	37
14	12	1670	7290	93	1300	81	360	1710	941	20	29	37
15	84	1520	12500	90	656	78	261	2220	1160	18	28	35
16	82	837	8380	87	292	77	208	3050	1410	18	26	33
17	114	409	5450	88	202	75	184	3790	1890	19	26	32
18	100	441	3230	93	172	77	173	3350	1140	20	25	30
19	73	410	1490	106	160	77	171	2340	266	20	24	27
20	56	278	488	111	149	78	161	1980	117	20	23	22
21	46	314	229	105	139	74	130	2090	85	24	23	19
22	53	371	169	98	130	70	386	2360	72	26	23	17
23	135	244	146	93	124	66	517	2510	66	25	25	17
24	280	257	132	88	118	63	187	1850	67	24	26	18
25	205	4870	123	85	110	60	91	782	57	24	28	21
26	128	9680	116	84	97	60	69	271	49	25	30	21
27	80	15800	111	82	90	58	64	159	45	28	32	21
28	58	11100	107	79	86	58	69	154	42	30	34	19
29	124	6660	104	76	---	57	103	109	40	32	31	18
30	171	6840	102	75	---	57	615	86	44	32	30	18
31	262	---	101	75	---	57	---	74	---	32	31	---
TOTAL	2423	65447	83313	2849	67513	2263	5124	54394	19683	820	818	983
MEAN	78.2	2182	2688	91.9	2411	73.0	171	1755	656	26.5	26.4	32.8
MAX	280	15800	12500	111	18600	84	615	3870	1890	41	34	68
MIN	12	41	101	75	73	57	56	74	40	18	23	17
AC-FT	4810	129800	165300	5650	133900	4490	10160	107900	39040	1630	1620	1950

CAL YR 1985 TOTAL 299065 MEAN 819 MAX 17000 MIN 12 AC-FT 593200
WTR YR 1986 TOTAL 305630 MEAN 837 MAX 18600 MIN 12 AC-FT 606200

08111500 BRAZOS RIVER NEAR HEMPSTEAD, TX

LOCATION.--Lat 30°07'44", long 96°11'15", Washington-Waller County line, Hydrologic Unit 12070101, at downstream side of bridge on U.S. Highway 290, 6,000 ft upstream from Texas and New Orleans Railroad Co. bridge, 6.5 mi northwest of Hempstead, 10.5 mi upstream from Caney Creek, and at mile 193.8.

DRAINAGE AREA.--43,880 mi^2, approximately, of which 9,566 mi^2 probably is noncontributing.

PERIOD OF RECORD.--October 1938 to current year. Gage-height records collected in this vicinity at intermittent periods since 1903 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 1512: 1941. WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 117.90 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 1, 1940, nonrecording gage at railroad bridge 6,000 ft downstream at datum 5.80 ft lower. Nov. 1, 1940, to Sept. 30, 1963, nonrecording gage at site 1,500 ft downstream at present datum. Oct. 1, 1964, to July 31, 1974, water-stage recorder 1,500 ft downstream at present datum.

REMARKS.--Estimated daily discharges: Oct. 12-20, Oct. 24 to Nov. 22, Dec. 8,9, and May 1-5. Records good except those for Oct. 1-11 and Aug. 20 to Sept. 30, which are fair and those for estimated daily discharges, which are poor. There are many small diversions above station for irrigation, municipal and industrial uses, and oilfield operations. At times, flow is affected by reservoirs on the Brazos River at Waco (station 08096500) and by reservoirs on the Lampasas and Little Rivers above Cameron. For statement regarding regulations by Soil Conservation Service floodwater-structures, see station 08110200. Several observations of water temperature were made during the year. Gage-height telemeter at station.

AVERAGE DISCHARGE.--48 years, 6,477 ft^3/s (4,693,000 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 143,000 ft^3/s May 2, 1957 (gage height, 44.21 ft), at site 1,500 ft downstream; minimum daily, 137 ft^3/s Nov. 6, 1952.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1899, 56.1 ft Dec. 8, 1913, at site 1,500 ft downstream at present datum, from information by Texas and New Orleans Railroad Co., obtained at bridge 6,000 ft downstream. Flood of July 4, 1899, reached a stage of 53.6 ft, at site 1,500 ft downstream at present datum, from information by Texas and New Orleans Railroad Co.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 50,600 ft^3/s Feb. 6 at 2300 hours (gage height, 27.50 ft); minimum daily discharge, 820 ft^3/s Oct. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1060	5400	30700	4700	3060	5510	1290	1900	6060	7510	4640	1800
2	1530	5000	23200	4190	2750	4620	1320	8000	5600	7260	4580	1600
3	3400	5200	19100	4050	2480	4000	1350	18000	5840	7260	4540	1450
4	3120	4800	16700	4140	2700	4310	1250	17500	8330	7410	4360	1400
5	2040	4200	15700	4110	25100	3920	1200	13100	10900	6920	4060	1200
6	1350	3700	14800	4130	47400	3680	1330	10000	10900	6230	3660	1250
7	1140	3200	13700	3880	45100	3570	1330	8310	10900	6070	3380	2400
8	971	2800	12600	3630	26500	3540	1420	6500	21000	6120	3170	4900
9	985	2500	11400	3620	19300	3260	1490	5770	32100	5860	2890	8420
10	907	3000	9700	3850	21000	3020	1490	6010	29300	5690	3410	8970
11	878	2600	8870	3940	20500	2730	1460	6660	25400	5640	3230	7000
12	850	2370	13500	3890	19400	2400	1630	8790	23800	5550	2620	5380
13	820	2270	35900	3960	18600	2260	2950	14900	28800	5320	2370	7410
14	1000	2220	40100	3400	18000	2270	2960	12200	34200	5300	2630	8290
15	1500	2400	27100	2870	16700	2440	2170	9470	29300	5960	2470	7950
16	1600	2350	17200	2620	15300	2670	1760	9180	23600	6770	2060	7370
17	2000	3600	13500	2680	13600	2510	1580	9520	20700	5890	1650	7250
18	2400	4300	12900	3010	12000	2300	1790	12100	21700	5100	1540	7190
19	2300	4100	14700	3090	11000	2090	2160	16500	22900	4780	1630	7130
20	2200	3800	15200	3130	10200	2050	2140	18200	22300	5540	1650	7150
21	2110	3250	14600	2980	9710	2150	1810	15200	19500	5510	1670	7290
22	9810	2740	13900	3570	9330	2460	1650	11600	17900	5010	1590	7360
23	12100	2410	12800	3550	8500	2720	1470	9500	14800	4660	1590	6600
24	9100	10100	11100	3060	8140	2220	1350	8330	12800	4970	1570	6540
25	7060	14200	9260	2890	7580	1750	1330	9010	12200	5630	1600	5670
26	4800	22800	8110	2880	6730	1550	1400	8460	11500	5650	1490	4710
27	4000	23200	7630	3550	5940	1490	1490	7560	10600	5500	1290	4180
28	3700	22700	7080	3820	5430	1420	1540	8910	9180	5420	1350	4170
29	4500	33600	6680	3760	---	1340	1490	7930	8520	4970	1300	4040
30	5400	38600	6060	3540	---	1540	1830	6080	7940	4720	1550	3750
31	5800	---	5270	3310	---	1470	---	6010	---	4700	1850	---
TOTAL	100431	243410	469060	109800	412050	83260	49430	311200	518570	178920	77390	159820
MEAN	3240	8114	15130	3542	14720	2686	1648	10040	17290	5772	2496	5327
MAX	12100	38600	40100	4700	47400	5510	2960	18200	34200	7510	4640	8970
MIN	820	2220	5270	2620	2480	1340	1200	1900	5600	4660	1290	1200
AC-FT	199200	482800	930400	217800	817300	165100	98040	617300	1029000	354900	153500	317000

CAL YR 1985 TOTAL 2263801 MEAN 6202 MAX 40100 MIN 697 AC-FT 4490000
WTR YR 1986 TOTAL 2713341 MEAN 7434 MAX 47400 MIN 820 AC-FT 5382000

08111700 MILL CREEK NEAR BELLVILLE, TX

LOCATION.--Lat 29°52'51", long 96°12'18", Austin County, Hydrologic Unit 12070104, on left bank at upstream side of abandoned bridge pier about 5 ft downstream from State Highway 36, 5.0 mi southeast of Bellville, 6.0 mi upstream from Brazos River, and 9.0 mi upstream from mouth.

DRAINAGE AREA.--376 mi².

PERIOD OF RECORD.--July 1963 to current year.

REVISED RECORDS.--WSP 2122: 1965(P). WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 122.82 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 5-14, Dec. 15 to Jan. 5, Feb. 9-11, Apr. 17-26, May 2 to June 10, June 14 to July 2, and July 18 to Sept. 9. Records good except those for estimated daily discharges, which are poor. During the year, the city of Bellville discharged about 425 acre-ft of sewage effluent into a tributary of Mill Creek above gage.

AVERAGE DISCHARGE.--23 years, 234 ft³/s (8.45 in/yr), 169,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 44,400 ft³/s June 13, 1973 (gage height, 17.95 ft); minimum daily, 0.08 ft³/s July 22, 23, 1971.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1899, 22.8 ft in 1940, from information by local residents and the State Department of Highways and Public Transportation.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 25	0800	12,900	14.48	June 8	unknown	*17,100	*15.52

Minimum daily discharge, (estimated) 4.0 ft³/s Oct. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	20	302	58	51	44	28	93	400	37	5.0	7.0
2	53	31	253	56	50	42	27	350	200	32	4.9	8.0
3	23	69	149	54	56	56	27	300	120	29	4.9	8.0
4	14	51	105	52	296	429	27	200	80	26	5.5	7.0
5	7.9	36	93	50	458	358	27	120	400	23	6.0	6.0
6	6.5	26	91	49	885	119	27	80	900	21	5.2	5.5
7	5.7	22	90	50	868	79	26	54	1100	20	5.0	20
8	5.2	19	86	53	207	66	26	37	12800	19	4.9	30
9	4.8	18	82	59	131	61	31	27	11000	20	4.8	50
10	4.5	17	78	98	169	58	74	60	4740	19	4.7	20
11	4.3	141	418	113	187	56	128	250	1650	17	4.6	15
12	4.1	2910	799	82	116	62	95	150	1040	16	5.5	194
13	4.0	368	871	67	90	58	59	100	466	15	5.2	453
14	5.0	106	634	60	82	52	45	80	550	13	5.0	950
15	61	64	184	56	78	51	35	65	500	12	4.8	312
16	46	49	125	55	75	48	31	110	350	17	4.7	93
17	22	64	109	92	74	44	35	300	270	14	4.7	52
18	15	308	102	268	71	44	31	450	210	12	4.6	35
19	13	109	95	146	67	42	28	250	170	10	4.6	32
20	11	64	88	100	63	40	26	150	140	8.8	4.5	28
21	11	47	85	86	61	36	24	100	120	7.4	4.5	30
22	23	40	83	75	57	35	23	70	100	6.6	4.5	24
23	330	37	80	68	56	34	22	60	90	6.2	6.0	21
24	158	2030	77	62	55	33	22	55	100	5.9	8.0	22
25	54	10700	74	61	51	32	21	50	100	5.7	11	20
26	32	4310	71	59	51	32	21	80	90	5.5	6.0	17
27	23	1040	68	55	50	33	20	150	70	5.4	5.0	15
28	20	784	66	54	49	32	20	160	60	5.3	10	16
29	38	259	64	53	---	31	21	100	50	5.2	65	20
30	29	161	62	52	---	29	25	400	43	5.1	20	17
31	23	---	60	52	---	28	---	600	---	5.0	10	---
TOTAL	1188.0	23900	5544	2295	4504	2164	1052	5051	37909	444.1	249.1	2527.5
MEAN	38.3	797	179	74.0	161	69.8	35.1	163	1264	14.3	8.04	84.2
MAX	330	10700	871	268	885	429	128	600	12800	37	65	950
MIN	4.0	17	60	49	49	28	20	27	43	5.0	4.5	5.5
CFSM	.10	2.12	.48	.20	.43	.19	.09	.43	3.36	.04	.02	.22
IN.	.12	2.36	.55	.23	.45	.21	.10	.50	3.75	.04	.02	.25
AC-FT	2360	47410	11000	4550	8930	4290	2090	10020	75190	881	494	5010

CAL YR 1985 TOTAL 79303.8 MEAN 217 MAX 10700 MIN 2.0 CFSM .58 IN. 7.85 AC-FT 157300
WTR YR 1986 TOTAL 86827.7 MEAN 238 MAX 12800 MIN 4.0 CFSM .63 IN. 8.59 AC-FT 172200

08114000 BRAZOS RIVER AT RICHMOND, TX

LOCATION.--Lat 29°34'56", long 95°45'27", Fort Bend County, Hydrologic Unit 12070104, on right bank at downstream side of downstream bridge on U.S. Highway 59 in Richmond, 925 ft downstream from Texas and New Orleans Railroad Co. bridge, and at mile 92.0.

DRAINAGE AREA.--45,007 mi^2, approximately, of which 9,566 mi^2 probably is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1903 to June 1906 and October 1922 to current year. Published as "at Rosenberg" October 1922 to September 1931 and equivalent except for diversion by Richmond Irrigation Co.'s canal. June to November 1901 and June to September 1902 in U.S. Department of Agriculture, Office of Experiment Stations, Bulletin Nos. 119 and 133. Gage-height records collected in this vicinity since 1914 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 1392: 1933. WSP 1632: 1958. WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 37.94 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1922, various types of nonrecording gages at railroad bridge 925 ft upstream at different datums. Oct. 1, 1922, to Sept. 30, 1931, nonrecording chain gage at Rosenberg 7.6 mi upstream at datum about 7 ft higher; Oct. 1, 1931, to Sept. 30, 1975, water-stage recorder at present site at datum 3.00 ft higher. Gage-height telemeter at station.

REMARKS.--No estimated daily discharges. Records good. Considerable water is diverted above station for irrigation and municipal supply. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see station 08110200. Gage-height telemeter at station.

AVERAGE DISCHARGE.--20 years (water years 1904-5, 1923-40) unregulated, 7,209 ft^3/s (5,223,000 acre-ft/yr); 46 years (water years 1941-86) regulated, 7,165 ft^3/s (5,191,000 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 123,000 ft^3/s June 6, 1929 (gage height, 43.6 ft, from floodmarks), present site and datum; minimum daily, 35 ft^3/s Aug. 23, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1852, 51.2 ft Dec. 10, 1913, present datum, from floodmarks on right bank 1,000 ft upstream from gage. From information by Texas and New Orleans Railroad Co., stages of other floods at railroad bridge, present datum, are as follows: May 1884, 46.7 ft; June 13, 1885, 47.7 ft; July 1899, 48.6 ft; May 2, 1915, 46.3 ft; and May 9, 1922, 43.9 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 45,600 ft^3/s June 10 at 1100 hours (gage height, 24.47 ft); minimum daily, 846 ft^3/s Oct. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1190	6100	40100	6710	4080	6460	1730	2030	7860	8590	4760	1730
2	1380	5660	34200	6110	3930	6190	1670	2730	7880	8020	4740	2000
3	1360	5370	26100	5550	3680	5990	1520	5510	7160	7680	4690	2070
4	1560	5550	21200	5150	3470	5500	1490	15500	6650	7550	4700	1740
5	2940	5540	18400	5080	3400	5340	1500	18100	7760	7650	4620	1480
6	2870	5080	17100	5070	20700	5350	1500	14600	11700	7560	4490	1600
7	2190	4340	16200	5040	40700	4660	1370	11500	14300	6910	4120	1750
8	1660	3760	15200	5000	43000	4330	1420	9830	14900	6440	3710	1920
9	1330	3390	14200	4730	28700	4190	1450	8220	31900	6270	3390	3220
10	1130	3050	13200	4540	20000	4090	1630	6930	44800	6200	3170	6190
11	1040	7170	13100	4610	20400	3810	1820	6880	39100	5970	3030	8810
12	979	16300	14400	4840	20200	3590	1980	7900	31900	5840	3560	8140
13	910	11900	20400	4800	19200	3270	1920	7990	28200	5600	3310	6450
14	892	7390	38100	4760	18400	2940	2030	13400	30300	5620	2860	7150
15	846	4710	42600	4620	17900	2790	3120	13800	34800	5370	2660	9020
16	1300	3980	31600	4080	17000	2730	3210	11100	31000	5650	2750	9000
17	1340	3520	20600	3650	15900	2880	2540	10000	25000	6490	2580	7940
18	1620	3510	15600	3530	14700	2930	2140	11100	22000	6640	2250	7510
19	2060	4910	14100	3840	13200	2790	1870	13500	22700	5800	1960	7460
20	2270	4840	15200	3980	12200	2650	2120	17200	23300	5210	1820	7410
21	2980	4490	16000	3940	11400	2440	2480	18700	22500	5240	1830	7430
22	3220	4290	15600	3850	10800	2390	2430	16300	20100	5710	1840	7410
23	4850	3760	15000	3840	10400	2490	2150	13100	18500	5550	2000	7650
24	12400	3890	14100	4290	9690	2830	1930	11000	16200	5050	2060	7250
25	10700	20000	12600	4080	9070	2960	1740	9670	14200	4860	1960	6720
26	8010	28700	11000	3690	8740	2550	1620	9770	13300	5210	1840	6530
27	6320	28000	9730	3500	7990	2170	1550	10500	12500	5760	1840	5850
28	5020	28600	9000	3610	7230	1920	1590	9350	11700	5580	1750	5090
29	4650	26800	8420	4180	---	1830	1690	9600	10400	5490	1570	4700
30	5260	34700	7910	4400	---	1760	1800	9650	9320	5270	1650	4580
31	6110	---	7430	4280	---	1690	---	8260	---	4910	1580	---
TOTAL	100387	299300	568390	139350	416080	107510	57010	333720	591930	189890	89090	165800
MEAN	3238	9977	18340	4495	14860	3468	1900	10770	19730	6125	2874	5527
MAX	12400	34700	42600	6710	43000	6460	3210	18700	44800	8590	4760	9020
MIN	846	3050	7430	3500	3400	1690	1370	2030	6650	4860	1570	1480
AC-FT	199100	593700	1127000	276400	825300	213200	113100	661900	1174000	376600	176700	328900

CAL YR 1985 TOTAL 2543784 MEAN 6969 MAX 42600 MIN 694 AC-FT 5046000
WTR YR 1986 TOTAL 3058457 MEAN 8379 MAX 44800 MIN 846 AC-FT 6066000

08114000 BRAZOS RIVER AT RICHMOND, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: October 1941 to current year. Chemical and biochemical analyses: January 1968 to current year. Pesticide analyses: October 1967 to May 1982. Sediment analyses: April 1957 to September 1962, February 1966 to June 1967, October 1980 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1945 to current year.
WATER TEMPERATURES: November 1950 to current year.
SUSPENDED-SEDIMENT DISCHARGE: January 1966 to September 1986.

REMARKS.--Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the Geological Survey District office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,600 microsiemens Sept. 4, 1978; minimum daily, 172 microsiemens Oct. 31, 1984
WATER TEMPERATURES: Maximum daily, 33.0°C Aug. 5, 1951; minimum daily, 1.0°C Jan. 8, 1970.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 13,500 mg/L Apr. 4, 1979; minimum daily mean, 8 mg/L Nov. 29, 1967, Sept. 20, and Oct. 6, 7, 1980.
SEDIMENT LOADS: Maximum daily, 1,860,000 tons Apr. 4, 1979; minimum daily, 9.8 tons Oct. 11, 1983.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,610 microsiemens Oct. 7; minimum daily, 202 microsiemens Nov. 26.
WATER TEMPERATURES: Maximum daily, 31.0°C Aug. 19-22; minimum daily, 6.0°C Dec. 19.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 6,330 mg/L Feb. 7 minimum daily mean, 25 mg/L Mar. 29, 30.
SEDIMENT LOADS: Maximum daily, 688,000 tons Feb. 7; minimum daily, 72 tons Oct. 15.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT												
24...	0620	12100	484	--	24.0	--	--	--	--	--	--	--
29...	1000	4600	--	--	19.0	--	--	--	--	--	--	--
29...	1030	4620	--	--	19.0	--	--	--	--	--	--	--
NOV												
13...	1019	12300	--	--	22.0	--	--	--	--	--	--	--
DEC												
01...	0635	40500	262	--	19.0	--	--	--	--	--	--	--
11...	0940	12700	--	--	11.5	--	--	--	--	--	--	--
17...	1400	19700	278	7.80	7.0	890	10.8	87	2.3	3400	9100	100
JAN												
22...	1308	3840	--	--	16.0	--	--	--	--	--	--	--
22...	1450	3820	774	8.50	16.0	55	11.2	112	2.1	36	20	210
MAR												
12...	1042	3610	1000	8.20	20.0	61	8.7	97	1.8	700	580	260
APR												
29...	0925	1650	1170	8.00	25.5	4.2	8.0	97	3.6	20	84	230
JUN												
10...	0645	45400	312	--	26.0	--	--	--	--	--	--	--
19...	1050	22700	760	8.00	28.0	300	7.0	90	1.2	K410	320	180
AUG												
11...	1200	2940	895	8.10	30.0	130	8.5	112	2.8	7300	130	210

DATE	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT												
24...	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
13...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
01...	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--
17...	13	34	4.5	16	0.7	3.8	91	18	17	0.20	9.7	177
JAN												
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	45	64	12	70	2	4.2	164	59	100	0.30	6.9	449
MAR												
12...	97	78	16	110	3	4.4	165	96	160	0.30	6.8	581
APR												
29...	100	65	16	140	4	4.8	124	130	220	0.30	2.3	662
JUN												
10...	--	--	--	--	--	--	--	--	--	--	--	--
19...	64	57	9.1	79	3	5.1	116	75	120	0.30	8.8	450
AUG												
11...	80	64	13	90	3	5.0	134	88	150	0.30	8.0	488

08114000 BRAZOS RIVER AT RICHMOND, TX--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT												
24...	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
13...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
01...	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--
17...	150	0.970	0.940	0.030	0.030	1.00	0.970	0.060	0.090	1.2	1.3	0.180
JAN												
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	420	0.590	0.640	0.010	0.010	0.600	0.650	0.070	0.050	0.63	0.70	0.220
MAR												
12...	570	0.690	--	0.010	<0.010	0.700	0.660	<0.010	<0.010	--	0.50	0.150
APR												
29...	650	--	--	<0.010	<0.010	<0.100	<0.100	0.060	0.050	0.84	0.90	0.120
JUN												
10...	--	--	--	--	--	--	--	--	--	--	--	--
19...	410	0.470	--	0.030	<0.010	0.500	0.490	0.060	0.030	0.74	0.80	0.190
AUG												
11...	500	0.090	--	0.010	<0.010	0.100	<0.100	0.050	0.030	0.45	0.50	0.110

DATE	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM
OCT												
24...	--	--	--	2180	71200	57	63	64	76	86	92	98
29...	--	--	--	526	6530	--	--	--	--	--	98	--
29...	--	--	--	507	6320	--	--	--	--	--	97	--
NOV												
13...	--	--	--	1330	44200	--	--	--	--	--	86	--
DEC												
01...	--	--	--	3140	343000	51	60	65	73	86	87	96
11...	--	--	--	846	29000	--	--	--	--	--	87	--
17...	0.080	0.070	0.21	1770	94100	--	--	--	--	--	86	--
JAN												
22...	--	--	--	92	954	--	--	--	--	--	96	--
22...	0.140	0.120	0.37	100	1030	--	--	--	--	--	92	--
MAR												
12...	0.070	0.060	0.18	144	1400	--	--	--	--	--	97	--
APR												
29...	0.050	0.030	0.09	32	143	--	--	--	--	--	98	--
JUN												
10...	--	--	--	1560	191000	52	53	60	67	77	80	93
19...	0.070	0.070	0.21	1110	68000	--	--	--	--	--	84	--
AUG												
11...	0.040	0.040	0.12	193	1530	--	--	--	--	--	99	--

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
OCT											
24...	99	100	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
NOV											
13...	--	--	--	--	--	--	--	--	--	--	--
DEC											
01...	99	100	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	150	3	56	<0.5	<1	<1	<3	3	160
JAN											
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
MAR											
12...	--	--	20	2	120	<0.5	<1	<1	<3	1	7
APR											
29...	--	--	--	--	--	--	--	--	--	--	--
JUN											
10...	99	100	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
AUG											
11...	--	--	20	3	110	<0.5	4	<1	<3	5	25

08114000 BRAZOS RIVER AT RICHMOND, TX--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT											
24...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
NOV											
13...	--	--	--	--	--	--	--	--	--	--	--
DEC											
01...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
17...	2	8	4	0.1	<10	1	<1	<1	280	<6	10
JAN											
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
MAR											
12...	1	20	2	<0.1	<10	1	1	1	900	<6	21
APR											
29...	--	--	--	--	--	--	--	--	--	--	--
JUN											
10...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
AUG											
11...	<5	18	3	<0.1	<10	2	<1	<1	640	<6	23

MONTHLY AND ANNUAL MEANS AND LOADS FOR OCTOBER 1985 TO SEPTEMBER 1986

MONTH YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-MHOS)	DIS-SOLVED SOLIDS (MG/L)	DIS-SOLVED SOLIDS (TONS)	DIS-SOLVED CHLORIDE (MG/L)	DIS-SOLVED CHLORIDE (TONS)	DIS-SOLVED SULFATE (MG/L)	DIS-SOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT. 1985	100387	672	379	103000	99	26800	67	18100	180
NOV. 1985	299300	406	228	184000	49	39800	40	32400	120
DEC. 1985	568390	369	207	318000	42	64400	36	55700	110
JAN. 1986	139350	742	417	157000	100	38900	74	27700	200
FEB. 1986	416080	442	248	279000	53	59000	44	48900	130
MAR. 1986	107510	791	445	129000	110	33000	79	22800	210
APR. 1986	57010	996	561	86400	160	24100	99	15300	250
MAY 1986	333720	470	264	238000	56	50500	46	41700	140
JUNE 1986	591930	571	321	513000	75	120000	56	90200	160
JULY 1986	189890	783	441	226000	110	57000	78	39900	210
AUG. 1986	89090	878	495	119000	130	31600	87	21000	230
SEPT 1986	165800	1040	587	263000	170	76100	100	46600	250
TOTAL	3058457	**	**	2615000	**	621000	**	460000	**
WTD.AVG.	8379	563	317	**	75	**	56	**	160

08114000 BRAZOS RIVER AT RICHMOND, TX--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
EQUIVALENT MEAN

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1210	628	273	564	867	580	1260	856	391	918	910	1270
2	1070	700	272	586	795	620	1260	668	371	870	800	1200
3	1230	766	260	572	788	523	1160	693	450	882	850	1280
4	1150	706	277	612	694	622	1070	558	554	837	728	1160
5	1340	730	290	561	745	542	1050	425	602	800	723	1310
6	1490	762	300	602	575	816	1030	397	674	771	704	1220
7	1610	752	310	587	361	837	994	416	632	807	757	1270
8	1430	653	324	650	338	830	1080	433	620	885	742	1170
9	1400	655	331	812	330	873	1120	446	371	801	748	1160
10	1210	642	355	749	326	910	1000	429	320	734	780	1100
11	1180	560	381	760	366	948	991	420	375	684	860	875
12	925	225	404	784	323	932	970	421	331	731	877	835
13	708	335	351	843	342	886	1000	485	305	658	891	627
14	641	273	330	786	359	913	975	632	340	653	860	881
15	630	390	360	774	429	834	1050	655	497	632	788	467
16	652	542	297	760	467	795	950	446	587	649	1180	761
17	667	651	298	766	463	713	1000	514	497	677	963	819
18	433	726	307	814	469	750	906	466	662	633	787	1090
19	621	909	347	800	489	783	1100	479	763	807	750	1240
20	832	957	360	725	515	746	929	391	773	1070	919	1290
21	928	824	382	729	499	736	928	466	768	933	949	1290
22	434	438	489	736	513	793	803	448	729	752	979	1300
23	700	457	539	756	516	810	794	419	731	605	972	1310
24	486	556	597	870	585	897	820	409	789	865	826	1250
25	515	413	596	767	567	1120	830	433	843	806	832	1270
26	321	202	602	671	596	917	858	432	840	848	1080	1220
27	292	332	620	874	658	903	940	422	857	589	1160	1090
28	310	264	652	1070	650	919	1080	434	1010	698	1200	1090
29	339	262	637	1010	---	891	1160	467	1140	862	1280	960
30	533	259	626	931	---	1110	1050	458	1100	886	1350	813
31	790	---	545	878	---	1230	---	448	---	877	1370	---
MEAN	841	552	410	755	522	832	1010	486	631	781	923	1090

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	16.0	19.0	11.0	15.0	13.0	21.0	24.0	25.0	28.0	30.0	27.0
2	19.0	---	12.0	11.0	17.0	13.0	21.0	23.0	25.0	28.0	---	27.0
3	20.0	15.0	12.0	11.0	17.0	16.0	21.0	22.0	25.0	28.0	---	28.0
4	20.0	14.0	12.0	13.0	17.0	15.0	21.0	21.0	25.0	28.0	30.0	28.0
5	20.0	14.0	12.0	10.0	18.0	15.0	23.0	21.0	27.0	---	30.0	29.0
6	20.0	15.0	12.0	10.0	16.0	15.0	23.0	21.0	27.0	28.0	29.0	29.0
7	20.0	16.0	11.0	11.0	15.0	15.0	23.0	23.0	27.0	29.0	29.0	27.0
8	21.0	17.0	11.0	---	15.0	15.0	23.0	24.0	---	29.0	29.0	26.0
9	21.0	18.0	13.0	8.0	---	15.0	24.0	24.0	26.0	28.0	29.0	26.0
10	23.0	20.0	15.0	8.0	15.0	15.0	20.0	24.0	26.0	29.0	29.0	27.0
11	24.0	21.0	---	---	10.0	21.0	20.0	23.0	26.0	29.0	30.0	27.0
12	---	21.0	11.0	8.0	10.0	20.0	---	24.0	26.0	29.0	29.0	27.0
13	25.0	22.0	10.0	9.0	9.0	19.0	22.0	25.0	27.0	29.0	29.0	28.0
14	25.0	22.0	---	9.0	10.0	19.0	23.0	25.0	27.0	29.0	29.0	28.0
15	25.0	22.0	7.0	9.0	9.0	19.0	22.0	25.0	27.0	29.0	29.0	27.0
16	23.0	26.0	7.0	12.0	12.0	---	21.0	25.0	27.0	29.0	29.0	28.0
17	24.0	20.0	7.0	13.0	14.0	19.0	21.0	25.0	27.0	28.0	30.0	---
18	25.0	21.0	7.0	13.0	15.0	21.0	22.0	23.0	27.0	28.0	30.0	28.0
19	---	21.0	6.0	13.0	15.0	18.0	22.0	21.0	27.0	29.0	31.0	26.0
20	24.0	18.0	---	13.0	16.0	15.0	21.0	21.0	27.0	29.0	31.0	27.0
21	24.0	16.0	7.0	15.0	16.0	15.0	21.0	21.0	27.0	30.0	31.0	28.0
22	24.0	16.0	7.0	15.0	14.0	18.0	21.0	21.0	28.0	30.0	31.0	28.0
23	24.0	18.0	11.0	14.0	14.0	---	22.0	22.0	28.0	30.0	30.0	28.0
24	24.0	20.0	9.0	13.0	14.0	---	22.0	24.0	28.0	30.0	28.0	28.0
25	24.0	20.0	8.0	15.0	14.0	18.0	23.0	25.0	28.0	30.0	28.0	28.0
26	23.0	20.0	8.0	13.0	15.0	18.0	23.0	25.0	28.0	30.0	29.0	28.0
27	22.0	21.0	11.0	10.0	16.0	19.0	23.0	25.0	28.0	30.0	29.0	28.0
28	---	18.0	10.0	10.0	15.0	19.0	23.0	24.0	28.0	30.0	29.0	28.0
29	19.0	17.0	10.0	13.0	---	19.0	23.0	25.0	28.0	30.0	27.0	28.0
30	19.0	18.0	10.0	14.0	---	---	24.0	25.0	28.0	30.0	27.0	28.0
31	16.0	---	13.0	15.0	---	21.0	---	25.0	---	30.0	---	---
MEAN	22.0	18.5	10.5	11.5	14.0	17.0	22.0	23.5	27.0	29.0	29.5	27.5

08114000 BRAZOS RIVER AT RICHMOND, TX--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	1190	44	141	6100	640	10500	40100	2870	311000
2	1380	49	183	5660	525	8020	34200	2120	196000
3	1360	49	180	5370	415	6020	26100	1420	100000
4	1560	92	388	5550	355	5320	21200	1110	63500
5	2940	320	2540	5540	308	4610	18400	910	45200
6	2870	490	3800	5080	302	4140	17100	670	30900
7	2190	445	2630	4340	282	3300	16200	550	24100
8	1660	260	1170	3760	240	2440	15200	440	18100
9	1330	95	341	3390	200	1830	14200	440	16900
10	1130	53	162	3050	152	1250	13200	410	14600
11	1040	41	115	7170	1140	44200	13100	550	19500
12	979	35	93	16300	2460	112000	14400	900	35000
13	910	31	76	11900	1080	35100	20400	1100	64400
14	892	30	72	7390	770	15400	38100	3940	414000
15	846	38	87	4710	470	5980	42600	3730	430000
16	1300	39	137	3980	300	3220	31600	2360	201000
17	1340	85	308	3520	250	2380	20600	1650	91800
18	1620	130	569	3510	220	2080	15600	1310	55200
19	2060	142	790	4910	350	4640	14100	1000	38100
20	2270	210	1290	4840	550	7190	15200	800	32800
21	2980	380	3060	4490	450	5460	16000	640	27600
22	3220	580	5040	4290	400	4630	15600	500	21100
23	4850	688	11400	3760	300	3050	15000	430	17400
24	12400	2780	94200	3890	733	11600	14100	460	17500
25	10700	2500	72900	20000	2900	147000	12600	430	14600
26	8010	1800	38900	28700	1950	152000	11000	390	11600
27	6320	1160	19800	28000	1600	121000	9730	370	9720
28	5020	800	10800	28600	2700	208000	9000	360	8750
29	4650	650	8160	26800	1920	139000	8420	315	7160
30	5260	580	8240	34700	2170	203000	7910	290	6190
31	6110	650	10700	---	---	---	7430	285	5720

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	6710	292	5290	4080	105	1160	6460	315	5490
2	6110	280	4620	3930	115	1220	6190	320	5350
3	5550	250	3750	3680	140	1390	5990	370	5980
4	5150	235	3270	3470	200	1870	5500	568	8430
5	5080	202	2770	3400	183	1760	5340	532	7670
6	5070	172	2350	20700	5980	410000	5350	358	5170
7	5040	170	2310	40700	6330	688000	4660	322	4050
8	5000	162	2190	43000	3630	425000	4330	290	3390
9	4730	170	2170	28700	2280	177000	4190	200	2260
10	4540	190	2330	20000	2100	113000	4090	170	1880
11	4610	170	2120	20400	1950	107000	3810	175	1800
12	4840	132	1720	20200	1400	76400	3590	190	1840
13	4800	132	1710	19200	1000	51800	3270	145	1280
14	4760	125	1610	18400	900	44700	2940	150	1190
15	4620	115	1430	17900	925	44700	2790	175	1320
16	4080	105	1160	17000	900	41300	2730	170	1250
17	3650	100	985	15900	920	39500	2880	150	1170
18	3530	100	953	14700	720	28600	2930	135	1070
19	3840	120	1240	13200	648	23100	2790	115	866
20	3980	140	1500	12200	590	19400	2650	98	701
21	3940	120	1280	11400	600	18500	2440	75	494
22	3850	100	1040	10800	600	17500	2390	52	336
23	3840	90	933	10400	590	16600	2490	50	336
24	4290	78	903	9690	540	14100	2830	65	497
25	4080	85	936	9070	490	12000	2960	65	519
26	3690	90	897	8740	465	11000	2550	52	358
27	3500	80	756	7990	430	9280	2170	40	234
28	3610	68	663	7230	360	7030	1920	30	156
29	4180	95	1070	---	---	---	1830	25	124
30	4400	100	1190	---	---	---	1760	25	119
31	4280	100	1160	---	---	---	1690	30	137

08114000 BRAZOS RIVER AT RICHMOND, TX--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	1730	40	187	2030	100	548	7860	1010	21400
2	1670	45	203	2730	259	1910	7880	900	19100
3	1520	45	185	5510	592	11500	7160	600	11600
4	1490	45	181	15500	2570	111000	6650	400	7180
5	1500	55	223	18100	3030	148000	7760	470	9850
6	1500	44	178	14600	2410	95700	11700	750	23700
7	1370	46	170	11500	1600	49700	14300	1500	57900
8	1420	67	257	9830	1150	30500	14900	1700	68400
9	1450	85	333	8220	750	16600	31900	1660	143000
10	1630	110	484	6930	560	10500	44800	1500	181000
11	1820	65	319	6880	450	8360	39100	1300	137000
12	1980	70	374	7900	400	8530	31900	1080	93000
13	1920	97	503	7990	480	10400	28200	950	72300
14	2030	112	614	13400	950	34400	30300	1200	98200
15	3120	142	1200	13800	1650	61500	34800	1820	171000
16	3210	135	1170	11100	1410	42300	31000	1700	142000
17	2540	170	1170	10000	1020	27500	25000	1260	85100
18	2140	130	751	11100	920	27600	22000	1060	63000
19	1870	177	894	13500	1000	36500	22700	1000	61300
20	2120	195	1060	17200	1250	58100	23300	950	59800
21	2480	182	1220	18700	1370	69200	22500	960	58300
22	2430	187	1230	16300	1210	53300	20100	950	51600
23	2150	167	969	13100	1100	38900	18500	860	43000
24	1930	172	896	11000	900	26700	16200	700	30600
25	1740	160	752	9670	670	17500	14200	620	23800
26	1620	140	612	9770	570	15000	13300	570	20500
27	1550	105	439	10500	600	17000	12500	560	18900
28	1590	95	408	9350	650	16400	11700	500	15800
29	1690	90	411	9600	550	14300	10400	450	12600
30	1800	87	423	9650	470	12200	9320	420	10600
31	---	---	---	8260	660	14700	---	---	---

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	8590	392	9090	4760	330	4240	1730	86	402
2	8020	392	8490	4740	320	4100	2000	94	508
3	7680	362	7510	4690	318	4030	2070	86	481
4	7550	315	6420	4700	310	3930	1740	79	371
5	7650	328	6770	4620	308	3840	1480	62	248
6	7560	350	7140	4490	320	3880	1600	58	251
7	6910	350	6530	4120	305	3390	1750	82	387
8	6440	340	5910	3710	320	3210	1920	185	959
9	6270	320	5420	3390	250	2290	3220	298	2590
10	6200	320	5360	3170	230	1970	6190	810	13500
11	5970	310	5000	3030	185	1510	8810	1470	35000
12	5840	310	4890	3560	200	1920	8140	1560	34300
13	5800	318	4980	3310	200	1790	6450	1250	21800
14	5620	310	4700	2860	205	1580	7150	1100	21200
15	5370	315	4570	2660	210	1510	9020	1260	30700
16	5650	308	4700	2750	160	1190	9000	950	23100
17	6490	360	6310	2580	148	1030	7940	800	17200
18	6640	400	7170	2250	111	674	7510	660	13400
19	5800	380	5950	1960	90	476	7460	425	8560
20	5210	350	4920	1820	70	344	7410	482	9640
21	5240	315	4460	1830	74	366	7430	460	9230
22	5710	312	4810	1840	74	368	7410	400	8000
23	5550	284	4260	2000	80	432	7650	380	7850
24	5050	268	3650	2060	110	612	7250	350	6850
25	4860	320	4200	1960	90	476	6720	320	5810
26	5210	295	4150	1840	76	378	6530	320	5640
27	5760	340	5290	1840	74	368	5850	305	4820
28	5580	390	5880	1750	64	302	5090	255	3500
29	5490	375	5560	1570	69	292	4700	272	3450
30	5270	370	5260	1650	73	325	4580	250	3090
31	4910	360	4770	1580	78	333	---	---	---

08115000 BIG CREEK NEAR NEEDVILLE, TX

LOCATION.--Lat 29°28'35", long 95°48'45", Fort Bend County, Hydrologic Unit 12070104, near center of stream at downstream side of bridge on State Highway 36, 1.5 mi downstream from Coon Creek, 5.5 mi north of Needville, and 10.5 mi upstream from Fairchild Creek, and 33.0 mi upstream from mouth.

DRAINAGE AREA.--42.8 mi².

PERIOD OF RECORD.--May 1947 to June 1950, March 1952 to current year.

REVISED RECORDS.--WSP 1148: 1947. WSP 1712: 1957-58, 1959(M). WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 59.39 ft above National Geodetic Vertical Datum of 1929. Prior to June 30, 1950, and May 29, 1959, to Mar. 29, 1960, nonrecording gage at 10.00 ft higher datum. March 1952 to May 28, 1959, and Mar. 30, 1960, to Sept. 30, 1967, water-stage recorder at 10.00 ft higher datum.

REMARKS.--Estimated daily discharges: Oct. 26 to Nov. 12, and Dec. 25 to Jan. 20. Records good except those for estimated daily discharges, which are poor. Channel rectification was completed in April 1956. There are no diversions above station. Low flow is supplemented by drainage from irrigated fields. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--36 years (water years 1948-49, 1953-86), 35.4 ft³/s (25,650 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,400 ft³/s June 26, 1960 (gage height, 23.81 ft); maximum gage height, 24.03 ft Oct. 31, 1959; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1913, 24.4 ft in August 1945 before channel rectification, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 11	about 2400	*6,490	*24.37	June 8	2100	2,010	19.93
Dec. 11	1630	2,660	20.36				

Minimum daily discharge, 0.48 ft³/s Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	15	21	1.1	1.1	.89	1.3	76	7.2	3.1	4.0	9.6
2	5.4	60	13	1.2	1.1	1.2	1.4	53	6.2	2.5	4.7	15
3	2.8	30	7.9	1.2	1.2	1.6	1.3	45	6.8	2.5	4.4	20
4	1.4	10	5.0	1.2	20	6.9	1.7	15	7.6	3.1	3.7	14
5	.74	5.0	3.3	1.1	3.9	1.9	1.4	7.1	11	4.8	3.8	8.2
6	.56	3.0	2.3	1.1	2.2	1.1	1.4	3.4	35	5.4	11	43
7	.50	2.0	1.9	1.0	1.5	.96	1.2	2.1	67	5.3	28	347
8	.48	1.5	1.7	1.3	1.1	1.0	1.1	1.7	796	5.2	27	410
9	.76	1.2	1.6	3.0	1.1	1.0	1.6	1.5	790	5.6	19	107
10	.72	1.0	1.3	4.0	1.1	1.0	12	21	200	6.1	12	51
11	.56	1100	1360	1.7	.94	1.0	13	10	205	6.8	7.6	28
12	.58	4200	819	1.4	.94	1.5	7.1	2.5	316	6.5	5.2	15
13	.74	1580	279	1.3	.90	1.3	3.3	1.8	228	4.3	3.8	18
14	1.3	383	96	1.5	1.0	1.0	1.6	1.6	205	4.9	3.5	13
15	2.3	145	43	1.3	.96	1.1	1.1	1.9	110	4.9	2.9	3.8
16	1.6	96	23	1.1	.93	1.1	1.1	1.5	84	5.8	2.2	13
17	1.2	49	13	1.2	1.1	1.2	1.1	55	32	8.2	2.3	38
18	1.2	25	8.3	1.1	1.0	1.1	1.1	112	16	9.2	1.9	6.6
19	15	16	5.1	1.1	1.1	1.0	1.1	37	116	8.9	1.6	4.0
20	26	8.2	3.6	1.1	1.1	.96	1.1	20	45	7.3	2.4	2.8
21	13	4.7	2.8	1.1	1.2	1.0	1.1	9.9	18	6.2	2.7	3.0
22	86	2.7	2.2	1.2	.83	.96	2.4	5.8	8.9	5.5	2.2	15
23	28	1.9	1.8	1.0	1.0	.96	1.9	3.9	5.6	4.8	26	36
24	51	70	1.3	1.1	1.1	1.0	1.5	3.0	3.6	4.9	51	22
25	4.4	553	1.2	1.2	1.0	1.1	1.2	2.8	4.8	5.2	36	13
26	2.4	224	1.1	1.1	1.1	1.1	1.2	3.5	6.0	5.3	19	8.2
27	1.5	130	1.2	1.0	1.2	1.3	1.0	5.1	6.2	4.8	14	5.2
28	50	125	1.1	1.0	1.1	1.2	1.1	5.5	5.1	4.1	5.7	3.8
29	75	62	1.2	1.2	---	1.2	2.5	8.2	4.4	3.9	2.8	3.2
30	20	32	1.2	1.1	---	1.3	2.0	8.5	3.8	3.4	1.7	2.9
31	25	---	1.2	1.1	---	1.2	---	7.7	---	3.4	2.3	---
TOTAL	446.14	8936.2	2725.3	41.1	52.80	41.13	71.9	533.0	3350.2	161.9	314.4	1279.3
MEAN	14.4	298	87.9	1.33	1.89	1.33	2.40	17.2	112	5.22	10.1	42.6
MAX	86	4200	1360	4.0	20	6.9	13	112	796	9.2	51	410
MIN	.48	1.0	1.1	1.0	.83	.89	1.0	1.5	3.6	2.5	1.6	2.8
AC-FT	885	17720	5410	82	105	82	143	1060	6650	321	624	2540

CAL YR 1985 TOTAL 17861.14 MEAN 48.9 MAX 4200 MIN .48 AC-FT 35430
WTR YR 1986 TOTAL 17953.37 MEAN 49.2 MAX 4200 MIN .48 AC-FT 35610

08116650 BRAZOS RIVER NEAR ROSHARON, TX
(National stream-quality accounting network)

LOCATION.--Lat 29°20'58", long 95°34'56", Fort Bend-Brazoria County line, Hydrologic unit 12070104, on right bank at downstream side of bridge on Farm Road 1462, 2.0 mi downstream from Big Creek, 2.1 mi upstream from Cow Creek, and 7.3 mi west of Rosharon and at mile 56.7.

DRAINAGE AREA.--45,339 mi², approximately, of which 9,566 mi² probably is noncontributing.

PERIOD OF RECORD.--April 1967 to September 1980, and Apr. 25, 1984, to current year.

REVISED RECORDS.--WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, Oct. 6-30, which are poor. Water is diverted above station for irrigation, industrial, and municipal supply and materially affects low flow. For statement regarding regulation by Soil Conservation Service floodwater-retarding structures, see station 08110200. Gage-height telemeter at station.

AVERAGE DISCHARGE.--15 yesars (water years 1968-80, 1985-86), 7,712 ft³/s (5,587,000 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 79,900 ft³/s May 14, 1968 (elevation, 50.74 ft); minimum daily, 40 ft³/s Apr. 7-10, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation since at least 1884, 56.4 ft about Dec. 11, 1913, from information by the State Department of Highways and Public Transportation.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 46,700 ft³/s Feb. 8 at 1700 hours (elevation, 37.86 ft); minimum daily, 750 ft³/s Oct. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1360	6270	38600	6750	3790	6480	1450	1380	7470	8010	4220	1730
2	1360	6180	38300	6240	3600	5860	1490	2170	7330	7430	4160	1940
3	1420	5970	31200	5680	3480	5730	1400	3150	7050	7080	4200	2100
4	1360	5690	24700	5270	5400	5650	1300	8810	6360	6690	4170	2090
5	1810	5710	20600	4990	4490	5070	1290	16200	7150	6580	4310	1780
6	2900	5490	18100	4800	9020	5070	1290	16000	8760	6580	4310	1650
7	2800	4890	17000	4710	33900	4680	1230	12500	12100	6320	4130	2110
8	2000	4150	15900	4690	45400	4100	1110	10000	13900	5820	3730	2510
9	1500	3660	14400	4620	39600	3850	1150	8430	23400	5530	3390	2790
10	1250	3300	13000	4400	26200	3740	1220	6940	41100	5450	3200	4320
11	1100	3970	12900	4250	21900	3660	1540	6230	42200	5360	3070	7030
12	1000	23300	18000	4400	22300	3550	1670	6560	35800	5220	3340	8170
13	900	25700	20600	4730	21700	3310	1780	7050	30600	5140	3550	7250
14	800	20900	32800	4680	20300	3010	1710	8680	30200	5050	3120	6330
15	750	13500	42200	4660	19700	2720	1980	12800	33200	4860	2820	7420
16	1000	7450	38700	4350	18800	2600	2720	11700	33400	4750	2690	8380
17	1200	4790	26300	3880	17200	2590	2330	9550	28000	5160	2660	7970
18	1400	3850	17500	3530	15700	2700	1740	9760	22900	5760	2470	7170
19	1700	3950	13900	3520	14100	2570	1430	11300	21300	5510	2220	7000
20	2300	4830	13500	3820	12500	2440	1390	14300	22000	4860	2000	6930
21	3000	4440	14600	3830	11500	2300	1800	17400	21900	4440	1870	6890
22	4000	4170	14800	3810	10800	2160	2110	17300	20300	4740	1910	6990
23	5000	3830	14300	3680	10400	2150	2020	14200	18400	4960	2070	7030
24	9000	3300	13700	3860	9900	2280	1780	11300	16600	4670	2420	7040
25	12000	9200	12600	4150	9190	2560	1430	9550	13900	4250	2280	6580
26	11000	28100	11000	3790	8740	2520	1200	9120	12600	4260	2100	6230
27	8000	30000	9470	3490	8270	2100	1130	9690	11600	4700	1970	5850
28	6000	31100	8680	3370	7490	1810	1120	9830	10800	5010	1920	5160
29	5000	29900	8160	3650	---	1640	1140	8800	9890	4810	1810	4580
30	4800	31700	7590	4100	---	1560	1240	9060	8730	4830	1670	4250
31	5660	---	7090	4180	---	1490	---	8460	---	4520	1780	---
TOTAL	103370	339290	590190	135880	435370	101950	46190	308220	578940	168350	89560	157270
MEAN	3335	11310	19040	4383	15550	3289	1540	9943	19300	5431	2889	5242
MAX	12000	31700	42200	6750	45400	6480	2720	17400	42200	8010	4310	8380
MIN	750	3300	7090	3370	3480	1490	1110	1380	6360	4250	1670	1650
AC-FT	205000	673000	1171000	269500	863600	202200	91620	611400	1148000	333900	177600	311900

CAL YR 1985 TOTAL 2691456 MEAN 7374 MAX 42200 MIN 196 AC-FT 5339000
WTR YR 1986 TOTAL 3054580 MEAN 8369 MAX 45400 MIN 750 AC-FT 6059000

08117500 SAN BERNARD RIVER NEAR BOLING, TX

LOCATION.--Lat 29°18'47", long 95°53'36", Wharton-Fort Bend County line, Hydrologic Unit 12090401, near left bank at downstream side of pile bent of bridge on Farm Road 442, 2.5 mi downstream from Snake Creek, and 4.5 mi northeast of Boling.

DRAINAGE AREA.--727 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1954 to current year.

REVISED RECORDS.--WSP 1712: 1958. WSP 1922: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 30.81 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Part of low flow is drainage from areas irrigated with diversions from Colorado River. Diversions above station for irrigation and other uses.

AVERAGE DISCHARGE.--32 years, 503 ft³/s (364,400 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,200 ft³/s June 28, 1960 (gage height, 42.41 ft); minimum daily, 2.4 ft³/s Nov. 27-30, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1900, 43.5 ft in 1913 (probably December). Flood in September 1938 reached a stage of 43.3 ft, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 14	1200	*20,600	*41.52	Dec. 12	1300	3,970	20.87
Nov. 26	0600	4,120	21.26	June 12	1600	3,780	20.35

Minimum daily discharge, 2.3 ft³/s, Apr. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	304	49	1700	59	16	12	23	59	337	135	100	94
2	425	113	1350	56	16	10	23	96	399	110	98	222
3	487	185	1030	52	16	10	14	264	491	88	103	310
4	450	143	712	49	32	14	8.3	360	508	71	122	294
5	362	113	500	46	37	13	6.6	351	492	65	166	213
6	300	86	349	44	33	22	5.0	265	606	69	271	208
7	240	73	242	41	33	87	3.5	189	570	76	422	511
8	176	69	177	42	77	112	2.7	147	697	106	417	1740
9	136	64	135	45	161	100	2.3	108	1960	125	308	1880
10	129	52	104	58	194	77	3.3	86	2380	146	221	1620
11	113	90	1480	63	188	57	5.6	161	2880	164	189	1170
12	92	3770	3850	59	186	41	7.5	101	3680	171	204	884
13	97	14900	3250	55	151	29	61	112	3650	180	246	653
14	100	20400	2300	52	113	22	71	106	3530	173	278	444
15	109	18600	2060	50	85	28	76	91	3110	171	246	307
16	139	14600	2260	46	67	44	66	73	2740	179	184	242
17	183	10500	1870	44	53	43	45	62	2370	193	145	195
18	189	7170	1270	43	42	36	34	620	1910	223	114	174
19	168	5000	870	41	35	26	29	678	1430	214	97	164
20	168	3760	582	37	34	19	30	605	1050	184	77	148
21	195	2360	386	38	32	14	59	565	818	177	60	128
22	479	1000	267	44	25	11	84	415	719	170	48	142
23	306	543	202	45	19	9.5	72	320	621	160	53	209
24	239	356	160	40	17	8.4	61	255	486	155	114	253
25	172	2680	133	38	16	7.5	57	185	380	145	150	276
26	122	3930	114	31	14	6.8	50	201	319	116	157	257
27	89	3250	101	25	13	5.2	39	400	300	101	144	252
28	67	3170	89	23	12	4.3	42	416	261	107	132	226
29	52	2880	75	24	---	5.2	47	452	218	110	123	197
30	64	2250	66	22	---	22	43	452	173	116	114	165
31	59	---	62	19	---	18	---	381	---	109	89	---
TOTAL	6211	122156	27746	1331	1717	913.9	1070.8	8576	39085	4309	5192	13578
MEAN	200	4072	895	42.9	61.3	29.5	35.7	277	1303	139	167	453
MAX	487	20400	3850	63	194	112	84	678	3680	223	422	1880
MIN	52	49	62	19	12	4.3	2.3	59	173	65	48	94
AC-FT	12320	242300	55030	2640	3410	1810	2120	17010	77530	8550	10300	26930

CAL YR 1985 TOTAL 282500 MEAN 774 MAX 20400 MIN 32 AC-FT 560300
WTR YR 1986 TOTAL 231885.7 MEAN 635 MAX 20400 MIN 2.3 AC-FT 459900

08117500 SAN BERNARD RIVER NEAR BOLING, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: November 1967 to September 1977. Chemical and biochemical analyses: February 1978 to September 1966. Sediment analyses: February 1978 to September 1986.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1978 to September 1981.
WATER TEMPERATURES: February 1978 to September 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,130 microsiemens Mar. 3, Apr. 15, 1981; minimum daily, 64 microsiemens May 25, 1979.
WATER TEMPERATURES: Maximum daily, 32.0°C June 26-28, 1980; minimum daily, 3.5°C Jan. 5, 1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)
DEC 10...	1525	101	245	7.60	17.0	86	8.8	91	1.2	84	130	88
MAR 11...	1330	56	351	7.40	21.5	70	6.8	77	2.1	120	170	110
APR 28...	1655	41	560	7.80	25.0	16	7.2	87	1.0	84	820	180
AUG 13...	1325	247	450	7.50	27.0	46	5.5	69	3.2	550	880	140

DATE	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
DEC 10...	13	26	5.6	15	0.7	4.4	75	13	25	0.1	16	176
MAR 11...	22	32	6.5	28	1	3.8	85	15	46	0.2	8.3	216
APR 28...	33	52	13	38	1	5.3	150	37	62	0.3	11	329
AUG 13...	21	37	12	28	1	9.5	121	16	53	0.3	28	266

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
DEC 10...	560	--	<0.01	0.23	0.09	0.07	1.1	1.2	0.16	0.13	0.09	0.28
MAR 11...	190	0.39	0.02	0.41	0.04	0.02	0.66	0.7	0.16	0.06	0.05	0.15
APR 28...	310	0.55	0.01	0.56	0.09	0.07	0.71	0.8	0.13	0.10	0.08	0.25
AUG 13...	260	0.91	0.19	1.10	0.08	0.07	1.3	1.4	0.28	0.20	0.18	0.55

DATE	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
DEC 10...	47	13	99	940	2	78	<0.5	<1	<1	<3	2	240
MAR 11...	37	5.6	98	140	1	92	<0.5	<1	<1	<3	3	94
APR 28...	31	3.4	96	--	--	--	--	--	--	--	--	--
AUG 13...	63	42	97	60	5	120	<0.5	<1	<1	<3	3	170

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER. DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC 10...	4	<4	16	<0.1	<10	1	<1	<1	120	<6	17
MAR 11...	<1	7	21	<0.1	<10	1	1	2	160	<6	7
APR 28...	--	--	--	--	--	--	--	--	--	--	--
AUG 13...	<5	9	5	<0.1	<10	3	<1	<1	240	<6	10

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Because the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than continuous stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage of those events. The data collected for special reasons are called measurements at miscellaneous sites.

Streamflow data collected at partial-record stations where water-quality data other than observations of water temperature are not obtained are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations; the second is a table of annual maximum stage and (or) discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low and high flows are given in a third table. Discharge measurements and water-quality data collected at partial-record stations are presented in downstream order in the section of this report entitled "Gaging-station records."

Low-flow partial-record stations

Measurements of streamflow at low-flow partial-record stations that are not published in the gaging-station section are given in the following table. Most of the measurements of low flow were made during periods when streamflow was sustained primarily by ground-water discharge. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will indicate the low-flow potential of the stream. The years listed in the column headed "Period of record" identifies the water years in which measurements were made at the same or at practically the same site.

Discharge measurements made at low-flow partial-record stations during water year 1986

Station no.	Station name	Location	Drainage area (mi²)	Period of record	Measurements	
					Date	Discharge (ft³/s)
		Brazos River basin				
08080900	White River below falls near Crosbyton, Tex.	Lat 33°39'57", long 101°09'35", Crosby County, at bridge on U.S. Highway 82 and 4.5 mi east of Crosbyton.	(a)	1951-86	10- 7-85	0.15
					1-15-86	.18
					4-22-86	1.05
					7-28-86	.02
08104290	Salado Creek above Salado, Tex.	Lat 30°56'42", long 97°32'30", Bell County, 0.2 mi upstream from I.H. 35, at Salado.	-	1984-86	10- 8-85	1.51
					10-31-85	21.6
					12-16-85	90.0
					1-23-86	21.3
					3- 5-86	32.4
					3-26-86	20.8
					5- 6-86	10.4
					6-26-86	14.4
					7-30-86	2.52
					9-10-86	14.2
08104795	North Fork San Gabriel River upstream from State Highway 418	Lat 30°38'44", long 97°40'49", Williamson County, 0.2 mi upstream from State Highway 418 at Georgetown.	-	1984-86	10- 8-85	6.53
					11-19-85	6.10
					12-30-85	80.8
					2-11-86	17.5
					3-25-86	6.74
					5- 5-86	13.6
					6-26-86	92.7
					7-28-86	5.07
					9-10-86	8.64
08104950	South Fork San Gabriel River upstream from State Highway 418 at Georgetown, Tex.	Lat 30°38'38", long 97°40'50", Williamson County, 0.2 mi upstream from State Highway 418, at Georgetown.	-	1984-86	10- 8-85	.14
					11-19-85	22.5
					12-30-85	68.8
					2-11-86	157
					3-25-86	34.8
					5- 5-86	16.4
					6-26-86	57.4
					7-28-86	5.22
					9-10-86	10.7
08105095	Berry Creek upstream from I.H. 35 near Georgetown, Tex.	Lat 30°42'11", long 97°39'58", Williamson County, 1.4 mi upstream from I.H. 35 near Georgetown.	-	1984-86	10- 8-85	0
					11-19-85	1.68
					12-30-85	32.3
					2-11-86	64.5
					3-25-86	10.2
					5- 5-86	1.10
					6-26-86	4.62
					7-28-86	0
					9-10-86	0

a Not applicable.

Discharge measurements made at low-flow partial-record stations during water year 1986--Continued

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Brazos River basin--Continued				
08105160	Dry Berry Creek near Georgetown, Tex.	Lat 30°41'28", long 97°38'14, Williamson County, at downstream side of county road, 0.4 mi upstream from mouth, and 4.0 mi northeast of Georgetown.	-	1986	10- 8-85	0.17
					11-19-85	5.31
					12-30-85	6.58
					2-11-86	12.6
					3-25-86	.25
					5- 5-86	.23
					6-26-86	.97
					7-28-86	.01
					9-10-86	.07
08111600	Piney Creek near Bellville, Tex.	Lat 29°57'06", long 96°10'20", Austin County, at bridge on county road and about 5.1 mi east of Bellville.	30.7	1948, 1955, 1958, 1964-86	2-13-86	9.16
					3-24-86	4.84
					4-28-86	4.99
					8- 1-86	1.26
					9-10-86	4.17
08111650	West Fork Mill Creek near Industry, Tex.	Lat 29°58'55", long 96°30'00", Austin County, at bridge on Farm Road 109 and about 0.6 mi north of Industry.	75.3	1964-86	10-17-85	.07
					3-24-86	3.23
					4-28-86	4.59
					9-10-86	0

Crest-stage partial-record stations

The following table contains annual maximum stage and (or) discharge at partial-record stations operated primarily for the purpose of defining the flooding characteristics of the streams. At stations where discharge is given, or is footnoted "to be determined", a stage-discharge relation has been, or will be, defined by discharge measurements obtained by current meter or by indirect procedures. Water-stage recorders are located at these flood-hydrograph stations to facilitate complete hydrograph definition. At stations where only the maximum stage is given (discharge column is dashed), data are generally collected for use in stage-frequency studies of flood-profile definition. Gages at these stations usually consist of a device that will register the peak stage occuring between inspections of the gage. The years used in the column "Period of record" identify the years in which the annual maximum has been determined.

Annual maximum stage and (or) discharge during water year 1986

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
San Jacinto River basin							
08067525	Goose Creek at Baytown, Tex.	Lat 29°46'14", long 94°59'58", Harris County, at bridge on Baker Road in Baytown, 1.1 mi upstream from West Fork Goose Creek, and 2.0 mi upstream from East Fork Goose Creek.	17.3	1984-86	5- 1-86	*17.10	-
08068325	Willow Creek near Tomball, Tex.	Lat 30°06'19", long 95°32'47", Harris County, at bridge on Kuykendahl Road, 0.6 mi upstream from Cannon Gully, and 4.0 mi east of Tomball.	41.0	1984-86	11-24-85	29.53	-
08068400	Panther Branch near Conroe, Tex.	Lat 30°11'28", long 95°28'44", Montgomery County, 2,400 ft downstream from former gage site, 5.1 mi upstream from station 08068450, and 8 mi southwest of Conroe.	26.1	1974-76, 1980-86	11-24-85	12.75	(a)
08068438	Swale No. 8 at The Woodlands, Tex.	Lat 30°08'38", long 95°28'09", Montgomery County, at bridge on Grogans' Mill Road at The Woodlands.	.55	1975-76, 1980-86	11-24-85	34.03	505
08068450	Panther Branch near Spring, Tex.	Lat 30°08'02", long 95°28'38", Montgomery County, at bridge on Sawdust Road, 3.0 mi upstream from Spring Creek, and 5.1 mi northwest of Spring.	34.5	1972-76, 1980-86	11-24-85	15.48	5,650
08068700	Cypress Creek at Sharp Road near Hockley, Tex.	Lat 29°55'15", long 95°50'24", Harris County, at bridge on Sharp Road and 7.4 mi south of Hockley.	80.7	1976-78, 1979-86	6-10-86	67.51	-
08072350	Buffalo Bayou near Fulshear, Tex.	Lat 29°43'22", long 95°46'01", Harris County, at proposed location of Peek Road bridge, about 200 ft downstream from Little Prong (bayou), 4,300 ft upstream from Mason Road, 8.3 mi east-northeast of Fulshear.	81.7	1986	6- 8-86	b15.82	-
08072400	Buffalo Bayou near Clodine, Tex.	Lat 29°43'06", long 95°43'53", Fort Bend County, on private road to Cinco Ranch, 2.8 mi west of Clodine, and 9.0 mi upstream from Barker Reservoir discharge structure.	84.2	1974-86	11-11-85	*b97.62	-
08072700	South Mayde Creek near Addicks, Tex.	Lat 29°48'03", long 95°41'33", Harris County, at bridge on Groeschke Road, 3.2 mi west of Addicks, and 4.6 mi upstream from Langham Creek.	32.3	1974-86	11-11-85	*106.45	-
08072760	Langham Creek at West Little York Road near Addicks, Tex.	Lat 29°52'01", long 95°38'47", Harris County, at bridge on West Little York Road, 500 ft upstream from former site on State Highway 6, 2.1 mi downstream from Dinners Creek, and 5.7 mi north of Addicks.	25.2	1977-86	11-24-85	22.47	1,170
08072800	Langham Creek near Addicks, Tex.	Lat 29°50'08", long 95°37'32", Harris County, at bridge on Clay Road, 3.6 mi north of Addicks, and 4.4 mi upstream from mouth.	48.9	1974-86	11-25-85	*99.41	-
08074020	Whiteoak Bayou at Alabonson Road at Houston, Tex.	Lat 29°52'14", long 95°28'49", Harris County, at bridge on Alabonson Road, in northwest Houston, 1.0 mi upstream from Vogel Creek, and 2.5 mi upstream from Cole Creek.	34.5	1984-86	11-24-85	*45.06	3,890
08074250	Brickhouse Gully at Costa Rica Street, Houston, Tex.	Lat 29°49'40", long 95°28'09", Harris County, at bridge on Costa Rica Street in northwest Houston and 1.0 mi upstream from Whiteoak Bayou.	11.4	1965-86†	11-24-85	*67.23	4,420
08074540	Little Whiteoak Bayou at Trimble Street at Houston, Tex.	Lat 29°47'33", long 95°22'06", Harris County, at bridge on Trimble Street, Houston.	18.0	1979-86	6-16-86	*38.36	-
08074760	Brays Bayou at Alief Road, Alief, Tex.	Lat 29°42'39", long 95°35'13", Harris County, at bridge on High Star Street in Alief.	14.1	1977-86	11-11-85	17.43	-

* Elevation.

† Operated as a regular streamflow station during some of these years.

a Not determined; rating definition pending.

b Maximum for partial year; probably exceeded during year.

Annual maximum stage and (or) discharge during water year 1986--Continued

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Elevation (feet)	Discharge (ft^3/s)
San Jacinto River basin--Continued							
08074780	Keegans Bayou at Keegan Road near Houston, Tex.	Lat 29°39'55", long 95°35'42", Harris County, at bridge on Keegan Road and about 16 mi southwest of Houston.	7.47	1965-71, 1975-86	11-11-85	*78.65	-
08074800	Keegans Bayou at Roark Road near Houston, Tex.	Lat 29°39'23", long 95°33'43", Harris County, at bridge on Roark Road in southwest Houston.	11.5	1965-86	11-11-85	*73.40	3,140
08074810	Brays Bayou at Gessner Drive, Houston, Tex.	Lat 29°40'21", long 95°31'41", Harris County, at bridge on Gessner Drive in southwest Houston and 0.10 mi below mouth of Keegans Bayou.	53.2	1977-86	11-11-85	*60.46	10,600
08075470	Sims Bayou at Martin Luther King Boulevard, Houston, Tex.	Lat 29°38'42", long 95°20'13", Harris County, at bridge on Martin Luther King Boulevard in south Houston.	48.4	1978-86	11-11-85	*37.61	-
08075780	Greens Bayou at Cutten Road near Houston, Tex.	Lat 29°56'56", long 95°31'10", Harris County, at bridge on Cutten Road and about 16.5 mi northwest of Houston.	8.06	1965-86	11-24-85	*115.22	1,260
08076900	Carpenters Bayou near Channelview, Tex.	Lat 29°46'20", long 95°09'24", Harris County, at bridge on temporary Beltway 8, at western boundary of Channelview 4.9 mi upstream from mouth.	29.5	1986	5- 1-86	b*10.40	-
Clear Creek basin							
08077505	Beamer Street Ditch at Houston, Tex.	Lat 29°35'30", long 95°13'19", Harris County, at bridge on Hughes Road in southeast Houston.	5.19	1984-86	11-11-85	*29.83	-
08077520	Turkey Creek near Friendswood, Tex.	Lat 29°35'02", long 95°11'13", Harris County, at bridge on Dixie Farm Road in southern Harris County, 2.4 mi upstream from Clear Creek, and 3.9 mi north-northeast of Friendswood.	6.78	1985-86	11-11-85	*26.30	-
08077600	Clear Creek near Friendswood, Tex.	Lat 29°31'02", long 95°10'42", Galveston County, at bridge on Farm Road 528 and 1.5 mi southeast of Friendswood.	-	1966-86	11-12-85	*14.54	-
08077630	Horsepen Bayou at Bay Area Blvd., Houston, Tex.	Lat 29°35'00", long 95°06'12", Harris County, at upstream bridge on Bay Area Blvd., in southeast Houston, and 2.0 mi upstream from Armand Bayou.	17.8	1985-86	11-11-85	*9.14	-
Highland Bayou basin							
08077780	Highland Bayou near Texas City, Tex.	Lat 29°19'54", long 94°56'42", Galveston County, at bridge on State Highway 6, 0.4 mi southwest of U.S. Highway 75, 1.5 mi from mouth, and about 3 mi southwest of Texas City.	-	1974-86	10-27-85	*2.91	-
Brazos River basin							
08092000	Nolan River at Blum, Tex.	Lat 32°09'02", long 97°24'09", Hill County, on right bank 60 ft upstream from bridge on Farm Road 933, 0.6 mi northwest of Blum, 2.8 mi downstream from Mustang Creek, 3.0 mi downstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 3.2 mi upstream from Rock Creek, and 8.5 mi upstream from mouth.	282	1924-25†, 1947-85†, 1986	6- 5-86 9- 2-86	10.52 18.79	6,160 18,400
08095300	Middle Bosque River near McGregor, Tex.	Lat 31°30'33", long 97°21'56", McLennan County, on downstream side of bridge on county road, 1,100 ft downstream from Pecan Creek, 5.2 mi northeast of McGregor, and 7.4 mi upstream from mouth.	182	1959-86	10-19-85 12-10-85	11.64 11.82	9,590 10,000
08095400	Hog Creek near Crawford, Tex.	Lat 31°33'20", long 97°21'22", McLennan County, on downstream side of bridge on Farm Road 185, 5.6 mi east of Crawford, and 9.8 mi upstream from South Bosque River.	78.2	1959-86	6- 6-86	5.77	1,990

* Elevation.

† Operated as a regular streamflow station during some of these years.

b Maximum for partial year; probably exceeded during year.

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October 1, 1978

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54×10^{1}	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^{0}	kilometers (km)
	Area	
acres	4.047×10^{3}	square meters (m^2)
	4.047×10^{-1}	square hectometers (hm^2)
	4.047×10^{-3}	square kilometers (km^2)
square miles (mi^2)	2.590×10^{0}	square kilometers (km^2)
	Volume	
gallons (gal)	3.785×10^{0}	liters (L)
	3.785×10^{0}	cubic decimeters (dm^3)
	3.785×10^{-3}	cubic meters (m^3)
million gallons	3.785×10^{3}	cubic meters (m^3)
	3.785×10^{-3}	cubic hectometers (hm^3)
cubic feet (ft^3)	2.832×10^{1}	cubic decimeters (dm^3)
	2.832×10^{-2}	cubic meters (m^3)
cfs-days	2.447×10^{3}	cubic meters (m^3)
	2.447×10^{-3}	cubic hectometers (hm^3)
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	2.832×10^{1}	liters per second (L/s)
	2.832×10^{1}	cubic decimeters per second (dm^3/s)
	2.832×10^{-2}	cubic meters per second (m^3/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day	4.381×10^{1}	cubic decimeters per second (dm^3/s)
	4.381×10^{-2}	cubic meters per second (m^3/s)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

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